

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

### V1: Summary of Issues in Budget Execution

Table V1.1: Overview of Vote Expenditures (US\$ Billion)

		Approved Budget	Released by End Q 2	Spent by End Q2	% Budget Released	% Budget Spent	% Releases Spent
Recurrent	Wage	33.233	16.617	16.617	50.0%	50.0%	100.0%
	Non Wage	25.291	14.406	12.759	57.0%	50.4%	88.6%
Dev.	GoU	51.473	26.553	24.706	51.6%	48.0%	93.0%
	Ext. Fin.	0.000	0.000	0.000	0.0%	0.0%	0.0%
<b>GoU Total</b>		<b>109.997</b>	<b>57.576</b>	<b>54.081</b>	<b>52.3%</b>	<b>49.2%</b>	<b>93.9%</b>
<b>Total GoU+Ext Fin (MTEF)</b>		<b>109.997</b>	<b>57.576</b>	<b>54.081</b>	<b>52.3%</b>	<b>49.2%</b>	<b>93.9%</b>
	Arrears	0.020	0.034	0.034	166.3%	166.3%	100.0%
<b>Total Budget</b>		<b>110.017</b>	<b>57.610</b>	<b>54.115</b>	<b>52.4%</b>	<b>49.2%</b>	<b>93.9%</b>
<i>A.I.A Total</i>		0.000	0.000	0.000	0.0%	0.0%	0.0%
<b>Grand Total</b>		<b>110.017</b>	<b>57.610</b>	<b>54.115</b>	<b>52.4%</b>	<b>49.2%</b>	<b>93.9%</b>
<b>Total Vote Budget Excluding Arrears</b>		<b>109.997</b>	<b>57.576</b>	<b>54.081</b>	<b>52.3%</b>	<b>49.2%</b>	<b>93.9%</b>

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	57.58	54.08	52.3%	49.2%	93.9%
<b>Total for Vote</b>	<b>110.00</b>	<b>57.58</b>	<b>54.08</b>	<b>52.3%</b>	<b>49.2%</b>	<b>93.9%</b>

### Matters to note in budget execution

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

During the first half of financial Period 2020/21 reporting period, Ministry of Finance Planning and Economic Development released to NARO Vote 142 Uganda shillings 57.6 billion as support to the development and recurrent expenditures of the Secretariat and her sixteen Institutes and satellites. This was 86% performance against the half year budget. The funds thus released were disbursed to the Institutes as soon as the warrants were approved. The half year financial Period recurrent budget was released at 100% and disbursed to the implementers; however, there was a 26% funding gap against the development budget. The budget was revised to include additional domestic arrears of 13million. The following are the key outstanding challenges of NARO:

1) Effectively conducting research under budget support:

Most of NARO's budget is under support to NARO (GoU Development) and mainly caters for capital items. The expenditures on core technology generation and dissemination and maintenance of infrastructure are categorized as consumptive expenditure and restricted to about 20% of the total budget. NARO has continued to request MoFPED to provide a code for the purpose.

2) Meeting expectations with inadequate and unsustainable funding:

NARO operates with a very limited budget which has affected generation and dissemination of agricultural technologies and; adequate engagement to stakeholders. For the past 10 or so years Uganda's agricultural research intensity ratio – that is, agricultural research spending as a share of its GDP (Ag GDP) – has remained less than the minimum investment target of 1 percent set by the African Union and the United Nations. This calls for deliberate step up in increasing spending on agricultural research.

3) Working with limited research infrastructure:

While there have been concerted efforts and funding from GoU and partners towards improvement of agricultural research infrastructure, the current infrastructure is still to undertake cutting edge research and respond to emerging issues. There are inadequate facilities such laboratories, scientific equipment, staff houses and transport to effectively conduct research. There is need to improve infrastructure to adequately contribute to agriculture transformation.

4) Operating under competing land use interests:

NARO operates under uncertain land ownership and distressing pressure from interested parties with immense development plans on land designated for agricultural research. This has slowed down investments in research infrastructure and interrupted effective implementation of land-use plans. This warrants investment in securing land for agricultural research.

5) Intellectual Property Management Constraints

- i. Limited human and financial resource capacity to conduct all functions of both IP Management activities in NARO ranging from IP protection, incubation and commercialization. This is occasioned by inadequate staff to coordinate activities and budget cuts.
- ii. Lengthy procurement process that delays progress in the establishment and set up of the incubation centre.
- iii. Limited regular coordination mechanism with PARIs

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

<i>(i) Major unspent balances</i>	
Programs , Projects	
Program 0151 Agricultural Research	
<b>1.534 Bn Shs</b>	<b>SubProgram/Project :01 Headquarters</b>
Reason: The organisation policy of payment for electricity payment from post to "Yaka" required some time to identify and record all the the organisation electricity metres for Proper payment . The number of the casual labourers engaged in the agricultural farms per dat was reduced during the quarter for proper compliancy to the recommended Covid- 19 pandemic SOPs	
<i>Items</i>	
<b>439,114,511.000 UShs</b>	228001 Maintenance - Civil
Reason: The IFMS required information of some of the main Contractors changed during the quarter and thus not updated until the 1st week of the 3rd quarter.	
<b>202,188,620.000 UShs</b>	211103 Allowances (Inc. Casuals, Temporary)

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

	Reason: The number of the casual labourers engaged in the agricultural farms per dat was reduced during the quarter for proper compliancy to the recommended Covid- 19 pandemic SOPs
<b>135,872,246.000 UShs</b>	228002 Maintenance - Vehicles
	Reason: The invoices for the services rendered were not received / processed by the end of the quarter interruption in the process caused by Covid 19 Pandemic.
<b>118,259,150.000 UShs</b>	223005 Electricity
	Reason: The organisation policy of payment for electricity payment from post to "Yaka" required some time to identify and record all the the organisation electricity metres for Proper payment
<b>98,920,400.000 UShs</b>	226001 Insurances
	Reason: The invoices from the insurers were received very late in the quarter for processing.
<b>0.010 Bn Shs</b>	<i>SubProgram/Project :26 NARO Internal Audit</i>
	Reason: Workshops were postponed to 3rd quarter due to the COVID 19 Pandemic. activity was postponed to 3rd quarter.
<i>Items</i>	
<b>8,832,501.000 UShs</b>	221002 Workshops and Seminars
	Reason: Workshops were postponed to 3rd quarter due to the COVID 19 Pandemic
<b>1,250,000.000 UShs</b>	221003 Staff Training
	Reason: activity was postponed to 3rd quarter.
<b>0.968 Bn Shs</b>	<i>SubProgram/Project :0382 Support for NARO</i>
	Reason: The invoice for the last instalment was received during the quarter for payment processing.  The IFMS required information of some of the main Contractors changed during the quarter and thus not updated until the 1st week of the 3rd quarter. -The Planned workshops were rescheduled under Scientific arrangements.  The activities were postponed an rescheduled due the disruptions caused by the Pandemic during the quarter.
<i>Items</i>	
<b>371,324,660.000 UShs</b>	221002 Workshops and Seminars
	Reason: The Planned workshops were rescheduled under Scientific arrangements.
<b>182,500,000.000 UShs</b>	223002 Rates
	Reason: The invoices from the insurers were received very late during the quarter for processing of the payments
<b>116,567,500.000 UShs</b>	281504 Monitoring, Supervision & Appraisal of Capital work
	Reason: The activities were postponed an rescheduled due the disruptions caused by the Pandemic during the quarter.
<b>100,000,000.000 UShs</b>	312213 ICT Equipment
	Reason: The invoice for the last instalment was received during the quarter for payment processing
<b>98,943,352.000 UShs</b>	228001 Maintenance - Civil

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

Reason: The IFMS required information of some of the main Contractors changed during the quarter and thus not updated until the 1st week of the 3rd quarter

*(ii) Expenditures in excess of the original approved budget*

### V2: Performance Highlights

**Table V2.1: Programme Outcome and Outcome Indicators\***

<b>Programme : 51 Agricultural Research</b>			
<b>Responsible Officer: Director General</b>			
<b>Programme Outcome: Increased production and productivity of priority and strategic commodities</b>			
<b>Sector Outcomes contributed to by the Programme Outcome</b>			
1 .Increased production and productivity of priority and strategic commodities			
<b>Programme Outcome Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
Percentage of new varieties promoted and adopted by farmers and other users	Percentage	45%	20%
Number of commercialisable technologies and innovations generated through competitive grant projects	Number	5	1
Increased production and productivity at some level resulting from utilization of improved technologies	Percentage	2%	1%

**Table V2.2: Key Vote Output Indicators\***

<b>Programme : 51 Agricultural Research</b>			
<b>Sub Programme : 01 Headquarters</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
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
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of technological innovation platforms established/supported	Number	68	18
No. of technological innovations delivered to uptake pathways	Number	131	40
<b>Sub Programme : 0382 Support for NARO</b>			

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
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
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	68	40
No. of technological innovations delivered to uptake pathways	Number	131	18
<b>Sub Programme : 07 National Crops Resources Research Institute</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	11	5
No. of new varieties submitted to Variety Release Committee for release	Number	17	8
No. of research studies under competitive grants scheme	Number	2	3
<b>Sub Programme : 08 National Fisheries Resources Research Institute</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
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
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	6	3
No. of technological innovations delivered to uptake pathways	Number	9	5
<b>Sub Programme : 09 National Forestry Resources Research Institute</b>			

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	3	3
No. of research studies under competitive grants scheme	Number	3	3
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	5	3
No. of technological innovations delivered to uptake pathways	Number	1	2
<b>Sub Programme : 10 National Livestock Resources Research</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	18	8
No. of new varieties submitted to Variety Release Committee for release	Number	2	2
No. of research studies under competitive grants scheme	Number	5	5
<b>Sub Programme : 11 National Semi arid Resources Research</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
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
<b>Sub Programme : 12 National Laboratories Research</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	1	14
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
<b>Sub Programme : 13 Abi ZARDI</b>			

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	2	2
No. of research studies under competitive grants scheme	Number	2	2
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	1	1
No. of technological innovations delivered to uptake pathways	Number	5	5
<b>Sub Programme : 14 Bulindi ZARDI</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	8	4
No. of research studies under competitive grants scheme	Number	2	1
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	2	0
No. of technological innovations delivered to uptake pathways	Number	4	3
<b>Sub Programme : 15 Kachwekano ZARDI</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	4	2
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
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	1	1
No. of technological innovations delivered to uptake pathways	Number	3	1

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

<b>Sub Programme : 1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of improved productivity technologies generated	Number	1	1
<b>Sub Programme : 16 Mukono ZARDI</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of improved productivity technologies generated	Number	3	2
No. of research studies under competitive grants scheme	Number	2	1
<b>Sub Programme : 17 Ngetta ZARDI</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of improved productivity technologies generated	Number	1	8
No. of research studies under competitive grants scheme	Number	1	1
<b>KeyOutPut : 02 Research extension interface promoted and strengthened</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of technological innovation platforms established/supported	Number	3	0
No. of technological innovations delivered to uptake pathways	Number	6	33
<b>Sub Programme : 18 Nabium ZARDI</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of improved productivity technologies generated	Number	7	4
No. of research studies under competitive grants scheme	Number	2	2
<b>Sub Programme : 19 Mbarara ZARDI</b>			
<b>KeyOutPut : 01 Generation of agricultural technologies</b>			
<b>Key Output Indicators</b>	<b>Indicator Measure</b>	<b>Planned 2020/21</b>	<b>Actuals By END Q2</b>
No. of improved productivity technologies generated	Number	7	3
<b>Sub Programme : 20 Buginyaya ZARDI</b>			



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

KeyOutPut : 01 Generation of agricultural technologies			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of improved productivity technologies generated	Number	6	10
No. of new varieties submitted to Variety Release Committee for release	Number	2	0
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 Q2
No. of improved productivity technologies generated	Number	6	2
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 Q2
No. of improved productivity technologies generated	Number	3	0
No. of new varieties submitted to Variety Release Committee for release	Number	3	0
No. of research studies under competitive grants scheme	Number	3	0
KeyOutPut : 02 Research extension interface promoted and strengthened			
Key Output Indicators	Indicator Measure	Planned 2020/21	Actuals By END Q2
No. of technological innovation platforms established/supported	Number	3	0
No. of technological innovations delivered to uptake pathways	Number	5	2

### Performance highlights for the Quarter

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

A summary of the physical performance in the reporting period is as follows:

- (1) Eleven candidate varieties were submitted to the Variety Release Committee against the set target of 20 varieties. These varieties have attributes of reduced maturity periods, disease and pest resistance, high yielding, drought tolerance and suitable for industry. These varieties are appropriate for food and nutrition security and largely targeting women, children and elderly. These submitted varieties with their field code names are; two (2) cassava (Mkumba and UG 120193), three (3) sweet potato (NKB17, NKB135, and NKB216), four (4) sorghum varieties (TEMANI16H, TITAN, TEMANI 20, BRAHN) and two (2) maize varieties (PVAUG-1 and PVAUG-2). The varieties are drought tolerant, early maturing, high yielding and food insecurity coping crops.
- (2) The production technologies generated and released were 35 against the set target of 70.
- (3) The Research studies implemented under Competitive Grant Scheme were 40 against the set target of 40.
- (4) The Technological innovation platforms (TIPs) were either established or supported to ensure technological transfer. TIPs established or supported were at 18 against the set target of 17.
- (5) The number of technological innovations delivered to uptake pathways stood at 40 compared to set target of 55.
- (6) The number of scientific publications was at 69 compared to the target of 70.
- (7) NARO implemented 11 Gender and equity responsive -research infrastructure across the PARIs.

NARO has invested in assets and improved liabilities as in the following text narratives and pictorials in this report.

- 1) The development release has continued to contribute to creation of nonresidential buildings and other structure as below:
- 2) National Coffee Research Institute (NaCORI)- multipurpose laboratory,
- 3) National Livestock Resources Research Institute (NaLIRRI) for the Vaccine facility, Aflasafe processing facility to mitigate afla- toxin, fencing off the institute premises,
- 4) Rwebitaba ZARDI to bring to use the premises built in the previous years.
- 5) Nabuin Zonal Agricultural Research and Development Institute – fencing off the institute premises.
- 6) 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 has been made.
- 7) In line with the agreements signed with international collaborators, NARO contributed a total of shilling 426.9 million.
- 8) This contribution to international organization under development budget is lagging behind at 28% 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.
- 9) During the period the domestic arrears were reduced by 33million, a commitment of 17 million was registered during the same period. The trade creditors therefor stood at 1,703 billion at 31 December 2021.

## V3: Details of Releases and Expenditure

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

<i>Billion Uganda Shillings</i>	<b>Approved Budget</b>	<b>Released</b>	<b>Spent</b>	<b>% GoU Budget Released</b>	<b>% GoU Budget Spent</b>	<b>%GoU Releases Spent</b>
<b>Program 0151 Agricultural Research</b>	<b>110.02</b>	<b>57.61</b>	<b>54.11</b>	<b>52.4%</b>	<b>49.2%</b>	<b>93.9%</b>
<b><i>Class: Outputs Provided</i></b>	<b>80.59</b>	<b>40.44</b>	<b>37.61</b>	<b>50.2%</b>	<b>46.7%</b>	<b>93.0%</b>
015101 Generation of agricultural technologies	15.73	8.88	8.61	56.5%	54.8%	97.0%
015102 Research extension interface promoted and strengthened	7.03	2.98	2.61	42.4%	37.1%	87.7%
015103 Internal Audit	0.18	0.05	0.04	26.8%	20.9%	78.1%
015104 Agricultural research capacity strengthened	57.65	28.52	26.34	49.5%	45.7%	92.3%
<b><i>Class: Outputs Funded</i></b>	<b>1.84</b>	<b>0.51</b>	<b>0.43</b>	<b>27.7%</b>	<b>23.2%</b>	<b>83.5%</b>
015151 Payments to International Organisations (CGIAR, ASARECA, WARDA)	1.84	0.51	0.43	27.7%	23.2%	83.5%
<b><i>Class: Capital Purchases</i></b>	<b>27.56</b>	<b>16.63</b>	<b>16.05</b>	<b>60.3%</b>	<b>58.2%</b>	<b>96.5%</b>
015172 Government Buildings and Administrative Infrastructure	20.11	13.64	13.22	67.8%	65.7%	96.9%
015176 Purchase of Office and ICT Equipment, including Software	0.45	0.41	0.31	92.0%	69.6%	75.7%

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

<i>Billion Uganda Shillings</i>	Approved Budget	Released	Spent	% GoU Budget Released	% GoU Budget Spent	%GoU Releases Spent
015177 Purchase of Specialised Machinery & Equipment	6.91	2.57	2.51	37.1%	36.3%	97.7%
015178 Purchase of Office and Residential Furniture and Fittings	0.09	0.01	0.01	12.6%	12.5%	99.2%
<b>Class: Arrears</b>	<b>0.02</b>	<b>0.03</b>	<b>0.03</b>	<b>166.3%</b>	<b>166.3%</b>	<b>100.0%</b>
015199 Arrears	0.02	0.03	0.03	166.3%	166.3%	100.0%
<b>Total for Vote</b>	<b>110.02</b>	<b>57.61</b>	<b>54.11</b>	<b>52.4%</b>	<b>49.2%</b>	<b>93.9%</b>

**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
<b>Class: Outputs Provided</b>	<b>80.59</b>	<b>40.44</b>	<b>37.61</b>	50.2%	46.7%	93.0%
211102 Contract Staff Salaries	33.23	16.62	16.62	50.0%	50.0%	100.0%
211103 Allowances (Inc. Casuals, Temporary)	4.44	2.13	1.90	47.9%	42.7%	89.2%
212101 Social Security Contributions	3.32	1.66	1.66	50.0%	50.0%	100.0%
213001 Medical expenses (To employees)	0.30	0.15	0.15	50.0%	50.0%	100.0%
213002 Incapacity, death benefits and funeral expenses	0.23	0.11	0.11	50.0%	50.0%	100.0%
213004 Gratuity Expenses	4.54	2.27	2.27	50.0%	50.0%	100.0%
221001 Advertising and Public Relations	1.13	0.55	0.47	48.7%	41.4%	85.0%
221002 Workshops and Seminars	5.32	1.76	1.36	33.2%	25.6%	77.0%
221003 Staff Training	0.87	0.16	0.13	18.1%	15.3%	84.6%
221004 Recruitment Expenses	0.11	0.06	0.05	50.0%	49.5%	99.1%
221006 Commissions and related charges	0.05	0.04	0.04	81.2%	81.2%	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	0.16	0.14	46.0%	39.3%	85.4%
221009 Welfare and Entertainment	0.55	0.23	0.21	41.0%	37.3%	91.0%
221011 Printing, Stationery, Photocopying and Binding	0.67	0.23	0.21	33.8%	31.9%	94.3%
221012 Small Office Equipment	0.10	0.02	0.01	15.7%	12.6%	80.3%
221016 IFMS Recurrent costs	0.23	0.13	0.08	57.1%	36.9%	64.6%
221017 Subscriptions	0.08	0.03	0.03	31.3%	31.2%	99.9%
222001 Telecommunications	0.17	0.12	0.09	70.5%	49.8%	70.6%
222002 Postage and Courier	0.01	0.01	0.00	46.2%	11.8%	25.5%
222003 Information and communications technology (ICT)	0.62	0.12	0.11	19.6%	17.1%	86.9%
223002 Rates	0.23	0.23	0.05	100.0%	21.5%	21.5%
223004 Guard and Security services	0.44	0.29	0.25	66.4%	55.9%	84.2%
223005 Electricity	1.11	0.77	0.65	69.7%	59.0%	84.7%
223006 Water	0.10	0.06	0.05	57.9%	54.2%	93.6%
224001 Medical Supplies	2.35	2.08	2.06	88.5%	87.6%	99.0%
224004 Cleaning and Sanitation	0.40	0.23	0.20	58.0%	50.8%	87.6%

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

224005 Uniforms, Beddings and Protective Gear	0.17	0.11	0.09	65.9%	53.1%	80.6%
224006 Agricultural Supplies	6.02	4.36	4.23	72.4%	70.3%	97.0%
225001 Consultancy Services- Short term	1.96	0.43	0.39	21.9%	19.7%	89.8%
226001 Insurances	0.12	0.11	0.01	91.1%	8.8%	9.6%
226002 Licenses	0.27	0.07	0.04	24.6%	13.6%	55.3%
227001 Travel inland	4.92	1.85	1.56	37.7%	31.7%	84.0%
227002 Travel abroad	0.25	0.00	0.00	0.0%	0.0%	0.0%
227004 Fuel, Lubricants and Oils	1.78	0.59	0.48	33.0%	26.9%	81.5%
228001 Maintenance - Civil	1.96	1.44	0.90	73.2%	45.8%	62.5%
228002 Maintenance - Vehicles	1.09	0.72	0.58	66.3%	53.6%	80.9%
228003 Maintenance – Machinery, Equipment & Furniture	0.82	0.46	0.37	56.4%	45.6%	81.0%
228004 Maintenance – Other	0.14	0.06	0.03	42.1%	19.1%	45.3%
273102 Incapacity, death benefits and funeral expenses	0.05	0.03	0.02	50.8%	47.5%	93.5%
<b>Class: Outputs Funded</b>	<b>1.84</b>	<b>0.51</b>	<b>0.43</b>	27.7%	23.2%	83.5%
262201 Contributions to International Organisations (Capital)	1.80	0.51	0.43	28.4%	23.7%	83.5%
264101 Contributions to Autonomous Institutions	0.04	0.00	0.00	0.0%	0.0%	0.0%
<b>Class: Capital Purchases</b>	<b>27.56</b>	<b>16.63</b>	<b>16.05</b>	60.3%	58.2%	96.5%
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	3.5%	0.0%	0.0%
281504 Monitoring, Supervision & Appraisal of Capital work	0.61	0.28	0.16	45.4%	26.4%	58.1%
312101 Non-Residential Buildings	14.05	11.57	11.56	82.4%	82.3%	99.9%
312102 Residential Buildings	0.43	0.41	0.41	95.1%	95.1%	100.0%
312104 Other Structures	3.96	1.33	1.09	33.6%	27.4%	81.6%
312202 Machinery and Equipment	1.88	0.52	0.46	27.5%	24.5%	88.9%
312203 Furniture & Fixtures	0.09	0.01	0.01	12.6%	12.5%	99.2%
312213 ICT Equipment	0.45	0.41	0.31	92.0%	69.6%	75.7%
312214 Laboratory Equipments	5.03	2.05	2.05	40.8%	40.7%	99.9%
<b>Class: Arrears</b>	<b>0.02</b>	<b>0.03</b>	<b>0.03</b>	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%
321613 Telephone arrears (Budgeting)	0.00	0.01	0.01	1.3%	1.3%	100.0%
<b>Total for Vote</b>	<b>110.02</b>	<b>57.61</b>	<b>54.11</b>	52.4%	49.2%	93.9%

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

<i>Billion Uganda Shillings</i>	<b>Approved Budget</b>	<b>Released</b>	<b>Spent</b>	<b>% GoU Budget Released</b>	<b>% GoU Budget Spent</b>	<b>%GoU Releases Spent</b>
<b>Program 0151 Agricultural Research</b>	<b>110.02</b>	<b>57.61</b>	<b>54.11</b>	<b>52.4%</b>	<b>49.2%</b>	<b>93.9%</b>

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Highlights of Vote Performance

<i>Recurrent SubProgrammes</i>						
01 Headquarters	48.55	24.93	<b>23.29</b>	51.4%	48.0%	93.4%
07 National Crops Resources Research Institute	0.24	0.13	<b>0.13</b>	53.4%	53.4%	100.0%
08 National Fisheries Resources Research Institute	0.33	0.15	<b>0.15</b>	46.0%	46.0%	100.0%
09 National Forestry Resources Research Institute	0.23	0.11	<b>0.11</b>	45.0%	45.0%	100.0%
10 National Livestock Resources Research	5.24	3.88	<b>3.88</b>	74.1%	74.1%	100.0%
11 National Semi arid Resources Research	0.24	0.10	<b>0.10</b>	40.2%	40.2%	100.0%
12 National Laboratories Research	1.33	0.77	<b>0.77</b>	57.8%	57.8%	100.0%
13 Abi ZARDI	0.18	0.07	<b>0.07</b>	37.1%	37.1%	100.0%
14 Bulindi ZARDI	0.19	0.08	<b>0.08</b>	41.8%	41.8%	100.0%
15 Kachwekano ZARDI	0.18	0.05	<b>0.05</b>	29.7%	29.7%	100.0%
16 Mukono ZARDI	0.35	0.15	<b>0.15</b>	43.3%	43.3%	100.0%
17 Ngetta ZARDI	0.18	0.08	<b>0.08</b>	43.7%	43.7%	100.0%
18 Nabium ZARDI	0.18	0.08	<b>0.08</b>	47.1%	47.1%	100.0%
19 Mbarara ZARDI	0.18	0.09	<b>0.09</b>	50.6%	50.6%	100.0%
20 Buginyaya ZARDI	0.34	0.16	<b>0.16</b>	46.8%	46.8%	100.0%
21 Rwebitaba ZARDI	0.18	0.09	<b>0.09</b>	47.0%	47.0%	100.0%
26 NARO Internal Audit	0.18	0.05	<b>0.04</b>	26.8%	20.9%	78.1%
27 National Coffee Research Institute	0.25	0.10	<b>0.10</b>	40.7%	40.7%	100.0%
<i>Development Projects</i>						
0382 Support for NARO	50.17	26.19	<b>24.34</b>	52.2%	48.5%	92.9%
1560 Relocation and Operationalisation of the National Livestock Resources Research Institute (NALIRRI)	1.30	0.37	<b>0.37</b>	28.1%	28.1%	100.0%
<b>Total for Vote</b>	<b>110.02</b>	<b>57.61</b>	<b>54.11</b>	<b>52.4%</b>	<b>49.2%</b>	<b>93.9%</b>

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

<i>Billion Uganda Shillings</i>	<b>Approved Budget</b>	<b>Released</b>	<b>Spent</b>	<b>% Budget Released</b>	<b>% Budget Spent</b>	<b>%Releases Spent</b>
---------------------------------	------------------------	-----------------	--------------	--------------------------	-----------------------	------------------------

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	---------------

### 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 work plan and budget 2021/22 developed and presented to NARO Council	227001 Travel inland	3,773
3 resource mobilization platforms developed	(2) 16 PARIs plans & target FY2021-22 reviewed and comments re-routed to 16 Directors of Research		
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 Technology disclosures ongoing		
2 records management policy instruments developed	(5) 1 Patent application drafted and nearing completion for filing		
16 technologies with IP potential	(6) 1 IPMC engagement organised to review licence agreements and MOUs drafted for commercialization of NARO technologies.		
	(6) Validated quarterly outputs reported the previous FY.		
	(7) Engaged and popularized the access and licensing NARO plant variety framework in 9 Institutes namely: NaCRRRI, Ngetta ZARDI, Nabuin ZARDI, NaSSARI, KaZARDI, MbaZARDI, Rwebitaba ZARDI, Abi ZARDI and NaCORI		
	(8) Developed the first draft of the incubation manual identified innovation best practices and input to the incubation manual		
	(9) Developed 3 licencing agreement templates for trees, vegetatively propagated crops, and grains		
	(10) A user requirements specifications (URS) document developed;		

#### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
		<b>Total</b>	<b>3,773</b>
		Wage Recurrent	0
		Non Wage Recurrent	3,773
		<i>AIA</i>	0

### Output: 02 Research extension interface promoted and strengthened

		Item	Spent
6 online platforms to support research& development in place	- Promotion of NARO key technologies on World Food day	221001 Advertising and Public Relations	10,040
10 technologies with commercial potential identified	- Meetings and outreach action plans developed with Feed the Future USAID project NARO chapter and Vision group on farm clinics, - An inception workshop for the development of a NARO partnership policy held and road map drawn to guide next task force engagements. - A revised plan and methodology for virtual farm clinics developed with the media team to align with the new normal. - User needs collected and a draft feedback mechanism developed with leadership from the Data Management Office. - Final draft of 2018/19 edited, revised and produced, pending authorisation to print. 2019/20 Annual Report data collected and collected. - 5 pieces of draft produced and submitted for review - 15 pieces of story chat set on NARO forage chopper produced - 12 volumes of newspaper booklets - Status report on records management at PARIS Inception report of the DIRCKM policy framework developed - Two possible collaborators identified Information Africa Organisation ASARECA -Engaged and popularized the access and licensing NARO plant variety framework in 9 Institutes namely: NaCRRRI, Ngetta ZARDI, Nabuin ZARDI, NaSSARI, KaZARDI, MbaZARDI, Rwebitaba ZARDI, Abi ZARDI and NaCORI - Developed the first draft of the incubation manual identified innovation best practices and input to the incubation manual - Developed 3 licencing agreement templates for trees, vegetatively propagated crops, and grains	221002 Workshops and Seminars	5,250
2 Policy framework documents validated		227001 Travel inland	1,100
4 existing platform maintained			
1 Mobile App development initiated			
1 digital library platform developed			

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	------------------

The following platforms have been re-scheduled for FY 2021-2022.

(1) 6 online platforms to support research& development in place

(2) 1 Mobile App development initiated

(3)1 digital library platform developed.

<b>Total</b>	<b>16,390</b>
Wage Recurrent	0
Non Wage Recurrent	16,390
<i>AIA</i>	0

**Output: 04 Agricultural research capacity strengthened**



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
2877.7 hectares of land surveyed for titling at serere,lugala,Nabuin and Ssendusu	(1) NARO Council oversight role strengthened	<b>Item</b>	<b>Spent</b>
Well implemented research agenda in 16 PARIs	(2) NARO Human resource of 678 managed and maintained.	211102 Contract Staff Salaries	16,616,615
NARO wide Performance Mid-term report	(3) NARO motor vehicle fleet , office buildings maintained	211103 Allowances (Inc. Casuals, Temporary)	334,800
100 NARO staff & associates trained in IP	(4) Monitoring and supervision of NARO land in Kitgum, Bulambuli and Namutumba., NARO land in Kisoro district and Kiige .	212101 Social Security Contributions	1,661,661
NARO Council oversight role strengthened	(5) NARO financial resource managed and maintained..	213001 Medical expenses (To employees)	150,000
		213002 Incapacity, death benefits and funeral expenses	112,500
		213004 Gratuity Expenses	2,270,950
		221001 Advertising and Public Relations	8,335
		221002 Workshops and Seminars	75,499
		221003 Staff Training	1,250
		221008 Computer supplies and Information Technology (IT)	11,200
		221009 Welfare and Entertainment	151,677
		221011 Printing, Stationery, Photocopying and Binding	38,898
		221016 IFMS Recurrent costs	48,890
		222001 Telecommunications	44,888
		222002 Postage and Courier	734
		222003 Information and communications technology (ICT)	18,299
		223004 Guard and Security services	57,530
		223005 Electricity	309,807
		223006 Water	8,651
		224001 Medical Supplies	25,636
		224004 Cleaning and Sanitation	66,956
		224005 Uniforms, Beddings and Protective Gear	36,125
		224006 Agricultural Supplies	667,605
		226001 Insurances	988
		227001 Travel inland	90,426
		227004 Fuel, Lubricants and Oils	105,521
		228001 Maintenance - Civil	164,347
		228002 Maintenance - Vehicles	151,547
		228003 Maintenance – Machinery, Equipment & Furniture	26,061
		228004 Maintenance – Other	3,403
		273102 Incapacity, death benefits and funeral expenses	10,845

*Reasons for Variation in performance*

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	---------------

The following outputs were not achieved due to budgetary constraints:

(1) 2877.7 hectares of land surveyed for titling at serere, lugala, Nabuin and Ssendusu.

(2) 100 NARO staff & associates trained in IP.

(3) Three (3) Agriculture research MOUs performance evaluated.

(4) Status report on Biometrics management in 4 PARIs.

(5) 6 NARO community infohubs conducted in 6 agro ecological zones.

<b>Total</b>	<b>23,271,646</b>
Wage Recurrent	16,616,615
Non Wage Recurrent	6,655,031
AIA	0
<b>Total For SubProgramme</b>	<b>23,291,809</b>
Wage Recurrent	16,616,615
Non Wage Recurrent	6,675,194
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	Item	Spent
1. 300kgs of foundation seed of beans produced (NAROBAN 6&7)	211103 Allowances (Inc. Casuals, Temporary)	15,289
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,		

### Reasons for Variation in performance

<b>Total</b>	<b>15,289</b>
Wage Recurrent	0
Non Wage Recurrent	15,289
AIA	0

#### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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.	- NACRRI research physical facilities managed and maintained. - NACRRI human resource managed and maintained.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	5,266
		221001 Advertising and Public Relations	1,500
		221002 Workshops and Seminars	3,004
		221008 Computer supplies and Information Technology (IT)	2,794
		221009 Welfare and Entertainment	1,305
		221011 Printing, Stationery, Photocopying and Binding	2,494
		222001 Telecommunications	3,000
		223004 Guard and Security services	7,500
		223005 Electricity	22,500
		224004 Cleaning and Sanitation	5,605
		226001 Insurances	640
		227001 Travel inland	2,351
		227004 Fuel, Lubricants and Oils	9,496
		228002 Maintenance - Vehicles	13,170
		228003 Maintenance – Machinery, Equipment & Furniture	5,450

### Reasons for Variation in performance

<b>Total</b>	<b>86,076</b>
Wage Recurrent	0
Non Wage Recurrent	86,076
<i>AIA</i>	0

### Arrears

<b>Total For SubProgramme</b>	<b>101,364</b>
Wage Recurrent	0
Non Wage Recurrent	101,364
<i>AIA</i>	0

### Recurrent Programmes

#### Subprogram: 08 National Fisheries Resources Research Institute

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
1 Least-cost mycotoxin safe aqua feeds formulated. 1 technology for increasing shelf life live feed 1 broad spectrum probiotic combination to manage hatchery bacterial diseases, 2 fish feeds formulae based on local ingredients 1 biocontrol agent for K	1. Produced BSF larvae for use in fish feeds (250 kgs of fresh BSF larvae produced, A total of 450kgs of fish meal produced, A total of 450kgs of fish meal produced 2. A brochure on how to grow BSF and use it for feeding fish produced	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 224006 Agricultural Supplies 227004 Fuel, Lubricants and Oils	<b>Spent</b> 3,825 10,807 1,840
<b>Reasons for Variation in performance</b>			
Work on going on (the following: (1) mycotoxin safe aqua feeds formulation. (2) shelf life live feed (3) fish feeds formulae based on local inputs.			
		<b>Total</b>	<b>16,472</b>
		Wage Recurrent	0
		Non Wage Recurrent	16,472
		<b>AIA</b>	<b>0</b>

### Output: 02 Research extension interface promoted and strengthened

16,000,000 fish seed (Tilapia, catfish mirror carp and Barbus) will be produced.	150,974 quality sex reversed tilapia fry produced and availed to farmers.	<b>Item</b>	<b>Spent</b>
1 CSO/NGO to work on HIV AIDs in fishing communities in place		221001 Advertising and Public Relations	500
1 Analysis of women and youth participation in various value chains of small fish completed		221008 Computer supplies and Information Technology (IT)	6,000
		221011 Printing, Stationery, Photocopying and Binding	1,081
		222001 Telecommunications	3,453
		227001 Travel inland	2,200
		227004 Fuel, Lubricants and Oils	1,880
<b>Reasons for Variation in performance</b>			
		<b>Total</b>	<b>15,114</b>
		Wage Recurrent	0
		Non Wage Recurrent	15,114
		<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
16,500 brood stocks of 4 farmer preferred fish species stocked 32 fish hatchery operators trained 6,000,000 sex reversed tilapia fry	1) 10,500 Nile tilapia brood stock acquired. 2). 33,350 quality sex reversed tilapia fry produced and availed to farmers. 3) Conducted routine maintenance of research physical facilities.	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221006 Commissions and related charges 221008 Computer supplies and Information Technology (IT) 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 223006 Water 224004 Cleaning and Sanitation 226001 Insurances 227001 Travel inland 227004 Fuel, Lubricants and Oils 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture	<b>Spent</b> 14,974 1,100 10,000 901 3,436 1,153 2,500 9,348 9,000 16,000 9,250 6,908 1,840 2,183 4,862 5,000 13,229 9,345

### Reasons for Variation in performance

<b>Total</b>	<b>121,029</b>
Wage Recurrent	0
Non Wage Recurrent	121,029
AIA	0
<b>Total For SubProgramme</b>	<b>152,615</b>
Wage Recurrent	0
Non Wage Recurrent	152,615
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 2: 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
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	<b>Item</b> 221002 Workshops and Seminars 224006 Agricultural Supplies 227001 Travel inland	<b>Spent</b> 1,875 1,047 150
<b>Reasons for Variation in performance</b>			

<b>Total</b>	<b>3,072</b>
Wage Recurrent	0
Non Wage Recurrent	3,072
<b>AIA</b>	<b>0</b>

### 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.	1. Design of 1 type of value added woodwaste product (Resin treated table) developed. Two epoxy treated tables from wood waste (tree stump off cuts) developed.  -Indigenous tree species) and waste wood products delivered to 10,000 stakeholders .	<b>Item</b> 221001 Advertising and Public Relations 221008 Computer supplies and Information Technology (IT)	<b>Spent</b> 1,060 4,998
---	---	--	--------------------------------

### Reasons for Variation in performance

<b>Total</b>	<b>6,058</b>
Wage Recurrent	0
Non Wage Recurrent	6,058
<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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	- Office, screen house and laboratories were maintained. - staff welfare improved through provision of office break tea, emergency first aid and counselling.	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221002 Workshops and Seminars 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 222001 Telecommunications 222002 Postage and Courier 222003 Information and communications technology (ICT) 223004 Guard and Security services 223005 Electricity 224004 Cleaning and Sanitation 224005 Uniforms, Beddings and Protective Gear 227001 Travel inland 227004 Fuel, Lubricants and Oils 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture	<b>Spent</b> 6,516 2,503 1,522 1,714 2,000 50 3,116 11,250 25,755 11,514 1,000 1,679 6,697 6,250 9,159 5,658

### Reasons for Variation in performance

Due to budgetary constraints there was no staff trained in teamwork building and Accountability and research proposal development.

<b>Total</b>	<b>96,384</b>
Wage Recurrent	0
Non Wage Recurrent	96,384
AIA	0
<b>Total For SubProgramme</b>	<b>105,513</b>
Wage Recurrent	0
Non Wage Recurrent	105,513
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 2: 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	A forage conservation facility maintained of (1) 50 acres of sorghum and pearl millet germplasm multiplied.  (2)1 variety of lab lab developed and maintained	<b>Item</b> 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	<b>Spent</b> 488,914 5,990 15,022 46,000 66,750 1,089,618 46,969 45,615 1,130,850 170,000 455,000 118,746 118,500

### Reasons for Variation in performance

Work on livestock vaccine molecules development still on-going.

<b>Total</b>	<b>3,797,973</b>
Wage Recurrent	0
Non Wage Recurrent	3,797,973
<i>AIA</i>	0

### 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	1) Three livestock laboratories (Animal Nutrition Laboratory, Animal health Laboratory, DETRA Laboratory) and one forage conservation facility (Cold room) maintained. 2) Two on-station field research facilities maintained. 3). Four livestock production facilities maintained. 4). Six research handling facilities maintain	<b>Item</b> 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	<b>Spent</b> 38,734 4,500 1,602 4,757 4,349 2,494 1,032 1,500 5,408 640 1,343 4,748 9,206
---	---	--	--

### Reasons for Variation in performance



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
		<b>Total</b>	<b>80,313</b>
		Wage Recurrent	0
		Non Wage Recurrent	80,313
		AIA	0
		<b>Total For SubProgramme</b>	<b>3,878,287</b>
		Wage Recurrent	0
		Non Wage Recurrent	3,878,287
		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.

- Analysis of results indicated that five cotton lines squared at 35 days after planting. These may indicate earliness of the cotton lines. 6 Cotton lines squared at 38-40 days (moderate) while the other 9 lines were in the range of 42-45 days after planting. Days to flowering ranged from 65-72 days after planting. Eight lines flowered at 65 days while the other 12 lines flowered at 66-72 days after planting

Item	Spent
227001 Travel inland	4,500
227004 Fuel, Lubricants and Oils	4,402

##### Reasons for Variation in performance

<b>Total</b>	<b>8,902</b>
Wage Recurrent	0
Non Wage Recurrent	8,902
AIA	0

##### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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.	NaSARRI's Corporate Image promoted among stakeholders thru field days hosted in Napak.  NASARRI Institutional mandate strengthened through 3 consultative engagements with stakeholders	<b>Item</b> 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	<b>Spent</b> 7,240 1,000 3,000 3,479 2,470 3,000 20,813 9,000 13,000 5,105 600 1,343 2,849 9,346 4,000

### Reasons for Variation in performance

<b>Total</b>	<b>86,245</b>
Wage Recurrent	0
Non Wage Recurrent	86,245
AIA	0
<b>Total For SubProgramme</b>	<b>95,147</b>
Wage Recurrent	0
Non Wage Recurrent	95,147
AIA	0

### Recurrent Programmes

#### Subprogram: 12 National Laboratories Research

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
3 Value added products of maize, beans, soybean for commercialization. 1 botanical and bio-control pest control system tested. Groundnut decorticator available. 8 climate smart technologies utilized. 2000 banana genotypes Hybrid seed generated	1. 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  2. First prototype of single row animal drawn weeder fabricated. Preliminary field testing shows that the prototype takes 3.5hours to weed 1 hectare of sorghum. It has weeding efficiency of 84%  climate smart technologies have been developed. 3. Four (4) units of NARO PAH fish smoking kilns ( 2 unit of NAROFIK-3-D6 and 2 units of NAROFIK-3-D4) fabricated. Kiln housing plan drawn and given to 4 private processors (Fish Farming Clusters, Kiyindi Women Fish Processors, Bwondha Women Fish Processors, and MIMUK Processors).	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 222001 Telecommunications 223005 Electricity 223006 Water 224006 Agricultural Supplies 227001 Travel inland 227004 Fuel, Lubricants and Oils 228003 Maintenance – Machinery, Equipment & Furniture	<b>Spent</b> 24,933 2,500 7,500 4,250 159,436 43,402 1,372 1,500

### Reasons for Variation in performance

Work on going for banana genotypes hybrids

<b>Total</b>	<b>244,893</b>
Wage Recurrent	0
Non Wage Recurrent	244,893
<i>AIA</i>	0

### Output: 02 Research extension interface promoted and strengthened

Strengthened capacity through Research extension interface promotions	1. Physicochemical and nutrient composition of bean products determined.  • market testing of instant maize products appropriate packages for instant maize products under development processing trials for instant bean products on-going  one product certified by UNBS, bean and maize based product under development in collaboration with private sector SME	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221002 Workshops and Seminars 221011 Printing, Stationery, Photocopying and Binding 224006 Agricultural Supplies 227001 Travel inland	<b>Spent</b> 10,833 7,883 2,750 274,334 21,200
---	---	--	---

### Reasons for Variation in performance

<b>Total</b>	<b>317,000</b>
Wage Recurrent	0
Non Wage Recurrent	317,000

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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

### Output: 04 Agricultural research capacity strengthened

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	7,000
221008 Computer supplies and Information Technology (IT)	6,490
221009 Welfare and Entertainment	4,198
221011 Printing, Stationery, Photocopying and Binding	6,130
221012 Small Office Equipment	150
222001 Telecommunications	1,800
222002 Postage and Courier	25
223004 Guard and Security services	14,540
223005 Electricity	17,500
224004 Cleaning and Sanitation	11,239
227001 Travel inland	2,853
227004 Fuel, Lubricants and Oils	22,325
228002 Maintenance - Vehicles	33,461
228003 Maintenance – Machinery, Equipment & Furniture	8,326
228004 Maintenance – Other	813

### Reasons for Variation in performance

<b>Total</b>	<b>205,064</b>
Wage Recurrent	0
Non Wage Recurrent	205,064
AIA	0
<b>Total For SubProgramme</b>	<b>766,956</b>
Wage Recurrent	0
Non Wage Recurrent	766,956
AIA	0

### Recurrent Programmes

#### Subprogram: 13 Abi ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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.	<b>Item</b>	<b>Spent</b>
Two Cassava composites products developed	2). The extent of investment and utilisation of cassava as food and feed among different stakeholders and the contribution of research documented	221006 Commissions and related charges	4,350
One nutrition platform for nutrient enhanced cassava products developed		222001 Telecommunications	400
Well maintained institutional research assets		224006 Agricultural Supplies	11,512
		227001 Travel inland	5,652
		228003 Maintenance – Machinery, Equipment & Furniture	14,750
	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		

### Reasons for Variation in performance

<b>Total</b>	<b>36,664</b>
Wage Recurrent	0
Non Wage Recurrent	36,664
<b>AIA</b>	<b>0</b>

### Output: 02 Research extension interface promoted and strengthened

Atleast two cassava based products disseminated to technology uptake pathways in West Nile	1). Abi ZARDI TIMPS delivered to stakeholders at 3 public events.	<b>Item</b>	<b>Spent</b>
Eight seminars conducted on nutrition focusing on nutrient enhanced research products	2). LSB groups profiled for crops and varieties grown, land available for production and seed demand estimates for 3 year period	221001 Advertising and Public Relations	875
		221002 Workshops and Seminars	3,125
		221008 Computer supplies and Information Technology (IT)	2,500
		221011 Printing, Stationery, Photocopying and Binding	375

### Reasons for Variation in performance

<b>Total</b>	<b>6,875</b>
Wage Recurrent	0

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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	6,875
		AIA	0

### 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)	3,258
221002 Workshops and Seminars	450
221008 Computer supplies and Information Technology (IT)	1,802
221009 Welfare and Entertainment	870
222001 Telecommunications	400
223004 Guard and Security services	3,000
223005 Electricity	1,000
223006 Water	200
224004 Cleaning and Sanitation	1,803
226001 Insurances	200
227001 Travel inland	1,511
227004 Fuel, Lubricants and Oils	1,424
228001 Maintenance - Civil	500
228002 Maintenance - Vehicles	5,037
228003 Maintenance – Machinery, Equipment & Furniture	946
273102 Incapacity, death benefits and funeral expenses	1,000

### Reasons for Variation in performance

<b>Total</b>	<b>23,401</b>
Wage Recurrent	0
Non Wage Recurrent	23,401
AIA	0
<b>Total For SubProgramme</b>	<b>66,940</b>
Wage Recurrent	0
Non Wage Recurrent	66,940
AIA	0

### Recurrent Programmes

#### Subprogram: 14 Bulindi ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
50% increase in banana productivity	Germ plasm for breeding and multiplication was maintained on station.	<b>Item</b>	<b>Spent</b>
Groundnut lines segregated against four attributes.	The institute maintains 2 acres of mother garden (0.25 acres of lablab, centrosema, green leaf desmoldia, Alfalfa and Brachieria brizantha respectively. On station mother gardens were maintained 2 crop (banana, and coffee). Cassava multiplication fields were maintained	211103 Allowances (Inc. Casuals, Temporary)	4,250
Reduced Rice yield loss by 50%		221002 Workshops and Seminars	3,375
one effective bio-fungicide identified		222001 Telecommunications	2,500
Status of fruit fly species in the LACZ determined.		223004 Guard and Security services	5,000
		223005 Electricity	5,000
		227001 Travel inland	1,500
	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		

### Reasons for Variation in performance

<b>Total</b>	<b>21,625</b>
Wage Recurrent	0
Non Wage Recurrent	21,625
<i>AIA</i>	0

**Output: 02 Research extension interface promoted and strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
5 research technologies promoted.  Strengthening research demonstrations for uptake among farmers and early adopters for increased production.	<p>Farmers from different districts were empowered in various fields. 140 farmers trained good agronomic practices for rice, vegetables, bananas and beans. 30 farmers in seed banking and water harvesting in Kyagwali refuge settlement. Farmers were guided to onstation demos maintained. 40 farmers and 10 community based facilitators from Kagadi and Kiryandongo given guided tours of research activities and crop/livestock demos. 110 farmers received guided tours of onstation demos for rice, vegetables, bananas and bean; 13 crop (1 maize-MM3, 1 Maksoy and 10 assorted vegetables) . 2 farmer learning events on vegetable growing conducted in Kasinina and Kibiingo, Hoima district focusing on site selection, variety selection, crop protection and harvesting. Over 150 farmers participated. 16 farmers were empowered on pig (10) and goat (6) health management. Additional 11 students were empowered on goat and pigand goat health management.</p> <p>77 farmers received beans and 50 farmers received finger millet seed in the project sites (Hoima-Kyagambire and Masindi-Budondo)</p> <p>On station demonstration gardens were established. These included 10 vegetable (Green pepper, tomatoes, egg plant, cabbage, pumpkin, butternuts, nightshades, ethiopian mustard, amaranthus, and african egg plant), 1 Maize (MM3) demo established.</p>	<p><b>Item</b></p> <p>221001 Advertising and Public Relations</p>	<p><b>Spent</b></p> <p>1,750</p>

### Reasons for Variation in performance

<b>Total</b>	<b>1,750</b>
Wage Recurrent	0
Non Wage Recurrent	1,750
<i>AIA</i>	0

Output: 04 Agricultural research capacity strengthened



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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 stakeholder meetings conducted and feedback disseminated to the respective recipients	1). On station demos maintained (Banana, coffee, and Cassava)	<b>Item</b>	<b>Spent</b>
		221002 Workshops and Seminars	2,253
	2). Planning Monitoring & Evaluation work shop held with all stakeholders	221009 Welfare and Entertainment	1,957
		221011 Printing, Stationery, Photocopying and Binding	779
	3). Routine maintenance of research facilities, machinery, equipment.	222001 Telecommunications	1,000
		222002 Postage and Courier	5
		223004 Guard and Security services	3,500
		223005 Electricity	16,000
		224004 Cleaning and Sanitation	3,605
		224005 Uniforms, Beddings and Protective Gear	5,500
		226001 Insurances	640
		227001 Travel inland	705
		227004 Fuel, Lubricants and Oils	1,664
		228002 Maintenance - Vehicles	12,365
		228003 Maintenance – Machinery, Equipment & Furniture	556
		228004 Maintenance – Other	78
		273102 Incapacity, death benefits and funeral expenses	500

### Reasons for Variation in performance

	<b>Total</b>	<b>51,106</b>
	Wage Recurrent	0
	Non Wage Recurrent	51,106
	<i>AIA</i>	0

### Arrears

	<b>Total For SubProgramme</b>	<b>74,481</b>
	Wage Recurrent	0
	Non Wage Recurrent	74,481
	<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 2: 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
6 onstation ponds rehabilitated and maintained in functional state 2 breeding bucks accessed Ten Soil fertility profiles developed 3 onstation orchards rehabilitated	6 onstation ponds rehabilitated and a Dairy herd of 24 maintained.	<b>Item</b> 221011 Printing, Stationery, Photocopying and Binding 224001 Medical Supplies 227001 Travel inland 227004 Fuel, Lubricants and Oils	<b>Spent</b> 300 19,161 2,594 454
<i>Reasons for Variation in performance</i>			
			<b>Total 22,509</b>
			Wage Recurrent 0
			Non Wage Recurrent 22,509
			AIA 0

**Output: 02 Research extension interface promoted and strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
3 new potato varieties promoted and tested on the market Baseline information on the performance of the Buck exchange Programme obtained	(1). 150 farmers mobilized and 3 field days conducted.	<b>Item</b>	<b>Spent</b>
		221001 Advertising and Public Relations	1,388
	(2). 44 farmers (30 males, 14 females) exposed and back stopped with apple technologies	221011 Printing, Stationery, Photocopying and Binding	475
		224001 Medical Supplies	4,125
		224006 Agricultural Supplies	2,859
	(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	227001 Travel inland	4,874
		227004 Fuel, Lubricants and Oils	400
	(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		

### Reasons for Variation in performance

<b>Total</b>	<b>14,121</b>
Wage Recurrent	0
Non Wage Recurrent	14,121
<i>AIA</i>	0

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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

four (4) consultative engagements, four (4) routine research infrastructure, vehicles machinery and equipment maintained.	Institutional research capacity Enhanced through one (2) consultative engagements, one (1) routine research infrastructure, vehicles machinery and equipment maintained and 2 Desktop.	Item	Spent
		211103 Allowances (Inc. Casuals, Temporary)	1,683
		221009 Welfare and Entertainment	832
		221011 Printing, Stationery, Photocopying and Binding	392
		222001 Telecommunications	638
		222003 Information and communications technology (ICT)	1,450
		223004 Guard and Security services	1,000
		223005 Electricity	2,125
		223006 Water	1,250
		224004 Cleaning and Sanitation	1,326
		226001 Insurances	250
		227001 Travel inland	451
		227004 Fuel, Lubricants and Oils	1,358
		228001 Maintenance - Civil	1,124
		228002 Maintenance - Vehicles	1,622
		228003 Maintenance – Machinery, Equipment & Furniture	1,378

### Reasons for Variation in performance

<b>Total</b>	<b>16,879</b>
Wage Recurrent	0
Non Wage Recurrent	16,879
AIA	0
<b>Total For SubProgramme</b>	<b>53,508</b>
Wage Recurrent	0
Non Wage Recurrent	53,508
AIA	0

### Recurrent Programmes

#### Subprogram: 16 Mukono ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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 (04) technologies generated (1 best legume for milk yield selected dosage rate DE application for odour reduction selected, and 3 management technologies)	1. Raised seedlings of (apples, 52 grafted and 198 ungrafted) 200 Eucalyptus, 2300 calliandra, 1400 Prunus, 2,400 fruit tree seedling, 600 avocado, 342 mango, 393 orange, 306 jackfruit seedlings, 600 pawpaw 2. A total of 934 seedlings were sold 3. The mother gardens at maintained and expanded Mukono and Kamenyamiggo. 4. Prepared and availed 4,495 coffee cuttings/(plantlets (3,233 at Mukono and 1,262 Kamenyamiggo station)to farmers in Mukono, Wakiso, Kayunga, Mayuge, Masaka, Lwengo and Bukomansimbi districts and these were. 5. Maintained 1.5 acres of banana demonstration at Mukono; the banana plantation at Kamenyamiggo was reduced to 5 acres to be able to manage it better and was maintained by weeding, de-suckering, manure and fertilizer application, pest control and replacing some banana matts 6. 0.5 acres of cassava (NAROCAS 1) seed multiplication garden was maintained and 40 bags of cuttings are ready for release to farmers; 7. 40 acres of bean seed multiplications (Narobean 1 and Nabe 15) were maintained at Kamenyamiggo 8. 30 acres of maize seed were maintained at Kamenyamiggo and Mukono	<b>Item</b> 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	<b>Spent</b> 3,500 3,750 18,750 29,000 4,500 8,194 5,426 6,902

### Reasons for Variation in performance

Increased enthusiasm in improved technologies and the contribution of off-budgets.

<b>Total</b>	<b>80,022</b>
Wage Recurrent	0
Non Wage Recurrent	80,022
<i>AIA</i>	0

**Output: 04 Agricultural research capacity strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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.	One (1) 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.	<b>Item</b> 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	<b>Spent</b> 10,860 1,500 10,499 2,175 150 13,012 700 12,965 11,449 6,119 625 1,500

### Reasons for Variation in performance

<b>Total</b>	<b>71,553</b>
Wage Recurrent	0
Non Wage Recurrent	71,553
AIA	0
<b>Total For SubProgramme</b>	<b>151,575</b>
Wage Recurrent	0
Non Wage Recurrent	151,575
AIA	0

### Recurrent Programmes

#### Subprogram: 17 Ngetta ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
Soil seed bank estimation technique, integrated weed management technologies for maize developed	1) A survey to establish current status of incidence, severity and distribution of key citrus diseases occurring in northern agroecological zone of Uganda was initiated. Data entry on-going in preparation for the development of geo-referenced incidence maps.	<b>Item</b>	<b>Spent</b>
2 incidence maps (1 for citrus leaf and fruit spot and 1 for gummosis disease) updated		211103 Allowances (Inc. Casuals, Temporary)	4,198
2 integrated disease management options for citrus diseases validated		221001 Advertising and Public Relations	141
1		221002 Workshops and Seminars	5,167
		221011 Printing, Stationery, Photocopying and Binding	234
	2) Established green house study validating three seed bank estimation techniques for determining weed seed density and species composition. Preliminary data was collected on percentage germination of weeds under each of the three treatments being evaluated.	223005 Electricity	3,600
		224001 Medical Supplies	4,175
		224006 Agricultural Supplies	5,864
		227001 Travel inland	9,542
		227004 Fuel, Lubricants and Oils	464
	3) An on-station trial on the effect of tillage practice and soil cover on weed density, diversity and maize and soyabean performance under conservation agriculture (CA) established for the third season was established.		
	5) Harvest of second season experiment was also done and collected data on weed diversity and abundance from the different treatments is being analysed 4) At least one onfarm trial for Integrated disease management (IDM) option of back horning for citrus disease established and maintained in Pader district under farmers practices. One litre of insecticide was procured Ridomil and 1 litre of Winner fungicide to maintain the trial		

### Reasons for Variation in performance

<b>Total</b>	<b>33,384</b>
Wage Recurrent	0
Non Wage Recurrent	33,384
<i>AIA</i>	0

**Output: 02 Research extension interface promoted and strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
Improved stakeholder awareness through demonstrations and exhibitions for proven agricultural research technologies enhancing; production practices on and off -station	<p>1) All the varieties of beans (NAROBAN 1,2,3,4C &amp; 5C) , four(4) varieties of soybeans (MAKSOY 1N, 3N, 5N &amp; 6N) and all the varieties of millet (NAROMIL 1,2,3,4) have been harvested. All the harvested crops are undergoing post harvest processes i.e drying, threshing and cleaning.</p> <p>2) Maintained at least 1/4 acre of established cassava demonstrations of improved varieties (NASE 14, 19, NAROCAS1 and NAROCAS2). Acquired foundation seed from national breeding centres and planted half acre of improved varieties of Beans (NAROBAN 1,2,3 , 4C and 5C, K35K35), Soyabean (MAKSOY 1N, 3N, 4N ,5N and 6N). Groundnuts (Serenut 8R, 9T, 11T 14R, NARONUT1), Sorghum (SESO 3, NAROSOG1-4) and Millet (NAROMIL 1,2,3 &amp; 4) for onstation evaluation, adaptation and multiplication. 15,000 rootstocks of citrus, 10,000 rootstocks of mangoes and 3,000 of shearnut seedlings were raised and maintained. 10,000 citrus rootstocks and 1,200 rootstock of mangoes were grafted/ budded and maintained.</p>	<p><b>Item</b></p> <p>211103 Allowances (Inc. Casuals, Temporary)</p> <p>221002 Workshops and Seminars</p> <p>221011 Printing, Stationery, Photocopying and Binding</p> <p>224006 Agricultural Supplies</p> <p>227001 Travel inland</p> <p>227004 Fuel, Lubricants and Oils</p>	<p><b>Spent</b></p> <p>1,708</p> <p>225</p> <p>219</p> <p>3,909</p> <p>1,980</p> <p>884</p>

### Reasons for Variation in performance

<b>Total</b>	<b>8,925</b>
Wage Recurrent	0
Non Wage Recurrent	8,925
<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

Institutional research capacity strengthened through 4 stakeholder consultative meetings and routine maintenance of research facilities, equipment and machinery	Ngetta ZARDI facilitated to undertake zonal mandate. Conducted routine maintenance of vehicles, research facilities, equipment and machinery	<p><b>Item</b></p> <p>211103 Allowances (Inc. Casuals, Temporary)</p> <p>221011 Printing, Stationery, Photocopying and Binding</p> <p>223004 Guard and Security services</p> <p>223005 Electricity</p> <p>223006 Water</p> <p>224004 Cleaning and Sanitation</p> <p>227001 Travel inland</p> <p>227004 Fuel, Lubricants and Oils</p> <p>228002 Maintenance - Vehicles</p>	<p><b>Spent</b></p> <p>3,784</p> <p>717</p> <p>9,744</p> <p>3,900</p> <p>3,000</p> <p>959</p> <p>2,419</p> <p>2,899</p> <p>8,060</p>
--	--	---	--



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	------------------

### Reasons for Variation in performance

<b>Total</b>	<b>35,481</b>
Wage Recurrent	0
Non Wage Recurrent	35,481
AIA	0
<b>Total For SubProgramme</b>	<b>77,790</b>
Wage Recurrent	0
Non Wage Recurrent	77,790
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

2 (two) facilitation visits made to 2 MSIPs (once each) in Serere and Kotido, supporting value chain development for horticulture and livestock respectively.

Item	Spent
211103 Allowances (Inc. Casuals, Temporary)	3,570
221011 Printing, Stationery, Photocopying and Binding	600
224006 Agricultural Supplies	10,822
227001 Travel inland	2,387
227004 Fuel, Lubricants and Oils	1,491

### Reasons for Variation in performance

<b>Total</b>	<b>18,870</b>
Wage Recurrent	0
Non Wage Recurrent	18,870
AIA	0

#### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
Awareness among communities about the transmission, impact and control of brucellosis strengthened.	2 (two) Technology Demonstrations established for farmer learning in Moroto and Serere, and information, education and communication (IEC) materials printed. Conducted routine maintenance of research facilities, equipment and machinery	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221002 Workshops and Seminars 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 222002 Postage and Courier 223004 Guard and Security services 223005 Electricity 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	<b>Spent</b> 18,418 700 3,004 870 935 60 8,020 7,456 4,153 1,200 350 1,514 3,343 4,000 5,495 4,450 1,500

### Reasons for Variation in performance

<b>Total</b>	<b>65,467</b>
Wage Recurrent	0
Non Wage Recurrent	65,467
AIA	0
<b>Total For SubProgramme</b>	<b>84,337</b>
Wage Recurrent	0
Non Wage Recurrent	84,337
AIA	0

### Recurrent Programmes

#### Subprogram: 19 Mbarara ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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)	<b>Item</b>	<b>Spent</b>
		221011 Printing, Stationery, Photocopying and Binding	1,000
		222001 Telecommunications	3,750
		223004 Guard and Security services	6,147
		223005 Electricity	10,000
		223006 Water	7,500
		227001 Travel inland	904
		227004 Fuel, Lubricants and Oils	920
		228002 Maintenance - Vehicles	3,000

### Reasons for Variation in performance

<b>Total</b>	<b>33,221</b>
Wage Recurrent	0
Non Wage Recurrent	33,221
AIA	0

Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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) Conducted routine maintenance of research facilities, vehicles, equipment and machinery.	<b>Item</b>	<b>Spent</b>
Four 4 technological innovation platforms established/supported		211103 Allowances (Inc. Casuals, Temporary)	10,862
Six thousand two hundred (6200) planting materials for 8 priority improved crop delivered to uptake pathways	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.	221001 Advertising and Public Relations	300
		221006 Commissions and related charges	11,000
		221008 Computer supplies and Information Technology (IT)	1,802
		221009 Welfare and Entertainment	1,305
		221011 Printing, Stationery, Photocopying and Binding	935
		223004 Guard and Security services	6,000
		224004 Cleaning and Sanitation	3,367
		226001 Insurances	640
		227001 Travel inland	1,259
		227004 Fuel, Lubricants and Oils	4,938
		228001 Maintenance - Civil	4,500
		228002 Maintenance - Vehicles	7,384
		228003 Maintenance – Machinery, Equipment & Furniture	4,031

### Reasons for Variation in performance

<b>Total</b>	<b>58,323</b>
Wage Recurrent	0
Non Wage Recurrent	58,323
AIA	0
<b>Total For SubProgramme</b>	<b>91,545</b>
Wage Recurrent	0
Non Wage Recurrent	91,545
AIA	0

### Recurrent Programmes

#### Subprogram: 20 Buginyaya ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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 Superior dual purpose cattle, 2 alternative spawning & fingerling rearing methods for Nile tilapia & Mirror carp & evaluate, Cost effective feeds fo	(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.	<b>Item</b> 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	<b>Spent</b> 8,691 7,669 16,402 36,486 9,247 4,712 11,965

### Reasons for Variation in performance

<b>Total</b>	<b>95,171</b>
Wage Recurrent	0
Non Wage Recurrent	95,171
AIA	0

Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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) 20 apple orchards rehabilitated to improve fruiting.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	3,258
	(2) Farm yard manure applied in the two apple orchards at Buginyanya station. Pest and disease management done with spraying. One onfarm apple orchard maintained in Bulambuli. Other activities done include defoliation, pruning, training and nipping	221001 Advertising and Public Relations	500
		221006 Commissions and related charges	6,000
		221009 Welfare and Entertainment	1,304
		221011 Printing, Stationery, Photocopying and Binding	935
		221012 Small Office Equipment	50
		222001 Telecommunications	3,000
		223004 Guard and Security services	12,000
		223005 Electricity	10,000
		223006 Water	3,750
		224004 Cleaning and Sanitation	3,383
		226001 Insurances	500
		227001 Travel inland	1,259
		227004 Fuel, Lubricants and Oils	3,418
		228001 Maintenance - Civil	4,000
		228002 Maintenance - Vehicles	6,411
		228003 Maintenance – Machinery, Equipment & Furniture	2,225
		228004 Maintenance – Other	375
		273102 Incapacity, death benefits and funeral expenses	1,000

### Reasons for Variation in performance

<b>Total</b>	<b>63,368</b>
Wage Recurrent	0
Non Wage Recurrent	63,368
AIA	0
<b>Total For SubProgramme</b>	<b>158,539</b>
Wage Recurrent	0
Non Wage Recurrent	158,539
AIA	0

### Recurrent Programmes

#### Subprogram: 21 Rwebitaba ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Cumulative Outputs and Expenditure by End of Quarter

		Item	Spent
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) 6100 seedlings raised [Grafted 1,400 Citrus oranges, lemons and tangerine; Grafted 1,300 Avocados ( Hass, Fuerte and Semil 34); Raised 2000 guava seedlings; 700 Maesopsis eminii; 700 Avocado rootstocks; 400 Lemon rootstock; 400 Calliandra calothyrsus; 200 Papaya; 100 Passion fruits	211103 Allowances (Inc. Casuals, Temporary)	15,470
		221011 Printing, Stationery, Photocopying and Binding	300
		224001 Medical Supplies	9,572
		224006 Agricultural Supplies	27,189
		227001 Travel inland	2,374
		227004 Fuel, Lubricants and Oils	1,804
		228002 Maintenance - Vehicles	1,500
	2) Two data sets of mango growth performance obtained.		
	6100 seedlings raised [Grafted 1,400 Citrus oranges, lemons and tangerine; Grafted 1,300 Avocados ( Hass, Fuerte and Semil 34); Raised 2000 guava seedlings; 700 Maesopsis eminii; 700 Avocado rootstocks; 400 Lemon rootstock; 400 Calliandra calothyrsus; 200 Papaya; 100 Passion fruits		
	3) 92 Tea accession tissue samples were collected and delivered to NaCRRI laboratory for DNA analysis.		
	3) Information on Profile of the tea beverage for nutrition and culinary attributes generated .		
	4) Information on tea product profile for tea beverage in Uganda generated.		
	5) 30 tea accessions profiled biochemically.		
	6) tea accessions assessed for specialty tea products.		
	7) Information on effectiveness different tea disease. management practices generated .		
	8) Suitable banana genotypes and plant parts for high nutrient compost production determined.		
	9) Increased availability of banana germplasm in WHAEZ.		
	10) Potato varieties suitable for food, nutrition and other products determined.		
	11) 2 acres of potato seed established.		
	12) 3 acres of bean seed established.		
	13) 1 acres of indigenous vegetable seed established..		

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	------------------

### Reasons for Variation in performance

<b>Total</b>	<b>58,209</b>
Wage Recurrent	0
Non Wage Recurrent	58,209
<i>AIA</i>	0

### Output: 04 Agricultural research capacity strengthened

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 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)	3,258
221001 Advertising and Public Relations	300
221002 Workshops and Seminars	406
221009 Welfare and Entertainment	1,393
221011 Printing, Stationery, Photocopying and Binding	467
222001 Telecommunications	938
223004 Guard and Security services	2,813
223005 Electricity	1,875
223006 Water	1,250
224004 Cleaning and Sanitation	3,005
224005 Uniforms, Beddings and Protective Gear	2,500
226001 Insurances	331
227001 Travel inland	965
227004 Fuel, Lubricants and Oils	1,424
228001 Maintenance - Civil	2,500
228002 Maintenance - Vehicles	2,390
228003 Maintenance – Machinery, Equipment & Furniture	1,394
273102 Incapacity, death benefits and funeral expenses	1,000

### Reasons for Variation in performance

<b>Total</b>	<b>28,209</b>
Wage Recurrent	0
Non Wage Recurrent	28,209
<i>AIA</i>	0
<b>Total For SubProgramme</b>	<b>86,418</b>
Wage Recurrent	0
Non Wage Recurrent	86,418
<i>AIA</i>	0



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	---------------

### Recurrent Programmes

#### Subprogram: 26 NARO Internal Audit

##### Outputs Provided

##### Output: 03 Internal Audit

Develop generate;	(1) One report on CGS projects progress review produced	Item	Spent
1 tool for reporting risk trends	(2) Two reports on Internal Audit value added services to management and the organization as a whole produced "	221002 Workshops and Seminars	2,492
12 CGS projects Audit performance reports	(3) One report on special circumstances produced.	221003 Staff Training	150
2 Procurement compliance Audit reports	(4) One report on validation of implementation of Audit recommendations	227001 Travel inland	35,003
1 value for money audit report	(5) Two reports on Governance, risk and control produced		
Governance & Environmental audits reports	(6) One draft Mid year performance review report and action log produced		
4 Risk Registers for PARI's	(7) One draft mid-year performance review report and action log produced		
2 audit rep	(8) One report on the asset register validated		
	(9) One report on procurement audit produced		
	(10) Four Internal Audit staff's capacity developed		
	(11) Risk management policy and procedural manual discussed		
	(12) Report on High and medium risks produced		
	(13) Risk Register updated.		

##### Reasons for Variation in performance

<b>Total</b>	<b>37,645</b>
Wage Recurrent	0
Non Wage Recurrent	37,645
AIA	0
<b>Total For SubProgramme</b>	<b>37,645</b>
Wage Recurrent	0
Non Wage Recurrent	37,645
AIA	0

### Recurrent Programmes

#### Subprogram: 27 National Coffee Research Institute

##### Outputs Provided

##### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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. Additional data input for designing drone surveillance system for CWD incidence and distribution from Kakumiro, Kibaale and Kagadi districts .  Distribution map and incidence in Masaka, Butambala, Gomba, Kasanda, Luwero and Kayunga districts. Incidence: Masaka = 0.5%, Butambala/Gomba - 3.1%, Kasanda = 1.4%, Luwero = 1.4% and Kayunga = 0.04. Mean incidence = 1.3%.	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221011 Printing, Stationery, Photocopying and Binding 224006 Agricultural Supplies 227001 Travel inland 227004 Fuel, Lubricants and Oils	<b>Spent</b> 2,805 375 80 13,260 8,121 2,761

### Reasons for Variation in performance

<b>Total</b>	<b>27,402</b>
Wage Recurrent	0
Non Wage Recurrent	27,402
<i>AIA</i>	0

### Output: 02 Research extension interface promoted and strengthened

Strengthen the institute with 5 computer accessories and utilized in training farmers and extension agents.	65 acres of well managed coffee production fields (mother gardens) with optimum crop harvests.	<b>Item</b> 221008 Computer supplies and Information Technology (IT)	<b>Spent</b> 2,400
---	--	---	-----------------------

### Reasons for Variation in performance

<b>Total</b>	<b>2,400</b>
Wage Recurrent	0
Non Wage Recurrent	2,400
<i>AIA</i>	0

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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 4 (four) Advisory committee meetings, and 4 routine maintenance, 3 research papers published	- Conducted routine maintenance of research facilities, equipment and machinery Successful advisory committee and staff meetings	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	7,964
		221001 Advertising and Public Relations	1,525
		221006 Commissions and related charges	7,200
		221009 Welfare and Entertainment	1,979
		221011 Printing, Stationery, Photocopying and Binding	936
		222001 Telecommunications	2,871
		222002 Postage and Courier	500
		223004 Guard and Security services	14,250
		223005 Electricity	9,000
		224004 Cleaning and Sanitation	5,605
		226001 Insurances	1,000
		228001 Maintenance - Civil	5,000
		228002 Maintenance - Vehicles	5,830
		228003 Maintenance – Machinery, Equipment & Furniture	5,203
		273102 Incapacity, death benefits and funeral expenses	2,381

### Reasons for Variation in performance

<b>Total</b>	<b>71,242</b>
Wage Recurrent	0
Non Wage Recurrent	71,242
AIA	0
<b>Total For SubProgramme</b>	<b>101,044</b>
Wage Recurrent	0
Non Wage Recurrent	101,044
AIA	0

### Development Projects

#### Project: 0382 Support for NARO

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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)	- Conducted supervisory visits to monitor national agricultural research programmes, projects and activities in the 4 PARIs NaCRRI, NACORI, NAFIRRI and NAFORRI.	<b>Item</b>	<b>Spent</b>
37 varieties submitted to VRC & 53 Research innovations	- 11 varieties submitted to VRC - 30 scientific publications published. - 3)	211103 Allowances (Inc. Casuals, Temporary)	915,801
64 research studies conducted.	First draft of the dossier for multi-locational vaccine trial approved by IBC, NBC and NDA.	221001 Advertising and Public Relations	20,000
110 scientific publications		221002 Workshops and Seminars	273,395
		221003 Staff Training	50,000
		221008 Computer supplies and Information Technology (IT)	18,700
		221011 Printing, Stationery, Photocopying and Binding	19,320
		222003 Information and communications technology (ICT)	29,400
		223004 Guard and Security services	740
		223005 Electricity	53,992
		224001 Medical Supplies	721,689
		224006 Agricultural Supplies	1,168,841
		225001 Consultancy Services- Short term	16,913
		227001 Travel inland	524,463
		227004 Fuel, Lubricants and Oils	65,282
		228001 Maintenance - Civil	30,000
		228002 Maintenance - Vehicles	6,000
		228003 Maintenance – Machinery, Equipment & Furniture	15,000

### Reasons for Variation in performance

The following outputs would not be achieved due to Inadquate funds

- National agricultural research programmes, projects and activities monitored and evaluated.
- Feasibility study, sampling, tool development and pretesting conducted.
- One draft Financial manual developed.
- One platform with private sector convined, outcome reported for implementation.
- Two Projects Pre-feasibility Study undertaken.

<b>Total</b>	<b>3,929,536</b>
GoU Development	3,929,536
External Financing	0
AIA	0

**Output: 02 Research extension interface promoted and strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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)	(1). 115 Research innovations developed to uptake pathways.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	92,975
	(2) 25 innovation platforms established /supported.	221001 Advertising and Public Relations	408,646
		221002 Workshops and Seminars	402,025
	(3) 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.	221003 Staff Training	15,000
		221008 Computer supplies and Information Technology (IT)	48,152
		221011 Printing, Stationery, Photocopying and Binding	77,818
	(4) 25 platforms (incubation, IP and technology dissemination and uptake).	222001 Telecommunications	4,181
		222003 Information and communications technology (ICT)	15,791
	(5) Meetings and outreach action plans developed with Feed the Future USAID project NARO chapter and Vision group on farm clinics,	224001 Medical Supplies	136,110
		224006 Agricultural Supplies	495,642
		225001 Consultancy Services- Short term	3,890
	(6) On IP management	226001 Insurances	1,200
	(a) - Scouting conducted in 4 PARIs 6 technologies identified and disclosed, two undergoing drafting that is; the LATERAL FLOW ASSAY FOR QUICK DETECTION OF ASF and 2 milk starter culture prototypes.	226002 Licenses	15,755
		227001 Travel inland	332,505
		227004 Fuel, Lubricants and Oils	22,360
		228001 Maintenance - Civil	126,599
		228002 Maintenance - Vehicles	11,376
	(b) One-on-One engagements organised at PARIs	228003 Maintenance – Machinery, Equipment & Furniture	14,525
	(c) 3 IPMC meeting held and 3 recommendations on commercialization generated i.e. South African breweries- NARO, NARO-CEDO and license agreement for seed companies.		

### Reasons for Variation in performance

A number of activities were interrupted by covid-19 lock-down which include:

- (1) Competence assessment studies conducted and report prepared .
- (2) Technology generation and dissemination needs identified through MSIPs documented, and availed to Management for decisions.
- (3) Farm Clinics organized and coordinated in two institutes.

<b>Total</b>	<b>2,224,549</b>
GoU Development	2,224,549
External Financing	0
AIA	0

**Output: 04 Agricultural research capacity strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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	- Conducted routine maintenance of research facilities, equipment and machinery Design plans for four (4) research facilities prepared but not yet finalised. - Assorted office stationery supplied . - Facilitated NARO committee meetings	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221001 Advertising and Public Relations 221002 Workshops and Seminars 221003 Staff Training 221004 Recruitment Expenses 221008 Computer supplies and Information Technology (IT) 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 221012 Small Office Equipment 221016 IFMS Recurrent costs 221017 Subscriptions 222003 Information and communications technology (ICT) 223002 Rates 223004 Guard and Security services 223005 Electricity 223006 Water 224001 Medical Supplies 224004 Cleaning and Sanitation 224006 Agricultural Supplies 225001 Consultancy Services- Short term 226002 Licenses 227001 Travel inland 227004 Fuel, Lubricants and Oils 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture 228004 Maintenance – Other	<b>Spent</b> 192,411 3,600 52,837 59,440 54,480 17,464 22,500 43,075 11,000 35,950 9,983 7,620 50,000 998 21,000 8,000 26,000 950 152,776 195,338 20,653 416,253 172,969 75,776 113,123 123,865 21,719

### Reasons for Variation in performance

The following outputs would not be achieved due to Inadquate funds released and coivd-19 restrictions:

- (1) Status report on Biometrics management in 4 PARIs.
- (2) Short term skills improvement programmes conducted for 16 PARIs and NARO Secretariat;
- (3) NARO wide budget performance and general budgetary monitoring and evaluation in 5 institutes reports prepared. -
- (4) Information on research products delivered to stakeholders through 12 TV programs on UBC, Bukedde TV+ TV West& 1 Media Centre Appearance conducted.

**Total 1,909,780**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
		GoU Development	1,909,780
		External Financing	0
		AIA	0

### Outputs Funded

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

NARO's subscription to four (04) international organisation maintained for improved image and future resources mobilization for research.	NARO contribution to International agencies for the year 2020 effected.	Item	Spent
	1) Africa Rice.	262201 Contributions to International Organisations (Capital)	426,905
	2) International Food Policy Research Institute		

### Reasons for Variation in performance

<b>Total</b>	<b>426,905</b>
GoU Development	426,905
External Financing	0
AIA	0

### Capital Purchases

#### Output: 72 Government Buildings and Administrative Infrastructure

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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.	<b>Item</b> 281504 Monitoring, Supervision & Appraisal of Capital work	<b>Spent</b> 161,433
	(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	11,359,390
		312102 Residential Buildings	411,842
		312104 Other Structures	1,085,366
	(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) Contract signed. Site handed over to contractor. Advance paid and civil works in progress for: (a) Construction of an Aflasafe Facility at NaLIRRI-Nakyesasa		
	(b) Construction of a Multipurpose Vaccine Facility in NaLIRRI-Nakyesasa		
	(8) The following contracts were signed, civil works completed and structure handed over: (a) Construction of Hayban		
	(b) Construction of Grain and Silage Bank		
	(c) Setting Up of a Wall Fence at Nakyesasa		
	(8) The following contracts were signed, civil works on going :		
	(a) Proposed Construction of Aquatic Diagnostics Lab at Kajjansi.		
	(b) Road Network at Nalirri		

### Reasons for Variation in performance



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	------------------

The following procurement were not handled due to lack of funds:

(1) Environmental Impact Assessment for Capital Works

(2) Feasibility Studies for Capital Works

(3) Master Plan Infrastructural Plan including stores designs  
Engineering and Design Studies for Capital Works

(4) Construction of an Administration Block at NARL-Namalere

(5) Construction of a Fish Floating Feed Structure

(6) Construction of a Screen House at NaFORRI

(7) Rehabilitation of an Incubation Center

(8) Construction of a Seed Cleaning Facility

(9) Construction of a Crush, Wall Fence, Dip at NaLIRRI-Nakyesasa

<b>Total</b>	<b>13,018,031</b>
GoU Development	13,018,031
External Financing	0
AIA	0

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

One software acquired, and ten offices retooled with computers. Two research institutes connected to the area wide networks.	Supplies delivered, payment effected and Contract closed for the following: (1) Supply and Installation of Board Portal Software (2) ICT Intervetion WAN phase one (3) Network Switch and Router delivered. (4) Supply and Installation of Software for a dedicated cloud server.	<b>Item</b> 312213 ICT Equipment	<b>Spent</b> 311,530
---	---	-------------------------------------	-------------------------

### Reasons for Variation in performance

Procurement in the pipeline include:

(1) Supply of Assorted IT Equipment -Lot.1-All in One Desktop-Lot.2-Desktop Computers, Lot.3-Laptops, Lot.4-UPSs

(2) Supply and Installation of Audio Visual Equipment

(3) ICT Intervetion (WAN).

<b>Total</b>	<b>311,530</b>
GoU Development	311,530
External Financing	0
AIA	0

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

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
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.	<p>1) Advance payment effected, for supply of specialised in vitro embryology equipment.</p> <p>(2) Supplies delivered, payment effected and contract closed for the installation of fish capsulation machine.</p> <p>(3) Contract signed. Advance payment effected. Awaiting for delivery of specialized laboratory &amp; vaccine equipment .</p>	<p><b>Item</b></p> <p>312202 Machinery and Equipment</p> <p>312214 Laboratory Equipments</p>	<p><b>Spent</b></p> <p>459,759</p> <p>2,048,409</p>

### Reasons for Variation in performance

Procurement in pipeline include the following:

- (1) Supply and Installation of Incubation Equipment & Assorted Machinery.
- (2) Supply and Installation of Floating Fish Feed Equipment
- (3) Supply of Machinery & Equipment for avocado project
- (4) Supply of Tractors with Assorted Implements

<b>Total</b>	<b>2,508,168</b>
GoU Development	2,508,168
External Financing	0
AIA	0

### 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)	- Mini Kitchen for office of DDG/Research coordination - Engraving ICT Equipment office Equipment and furniture - Executive chair, coat hunger for DDG/ATP	<b>Item</b>	<b>Spent</b>
Four residential houses furnished		312203 Furniture & Fixtures	11,409

### Reasons for Variation in performance

Contract not signed due to insufficient funds.

(a) Supply of Furniture & Fittings to PARIs and NARO Secretariat. Tendering process concluded. Contract awarded to M/S Nina Interiors (U) Ltd. On going

<b>Total</b>	<b>11,409</b>
GoU Development	11,409
External Financing	0
AIA	0
<b>Total For SubProgramme</b>	<b>24,339,907</b>
GoU Development	24,339,907
External Financing	0
AIA	0

### Development Projects

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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
------------------------	---	--	---------------

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

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

1900 MT of silage and hay produced for dry season feeding	Harvest trials planted on station (1) 5 acres, of Maize, 5 acres of Soya and 4 acres of Sun flower . 2) 86 acres of maize	<b>Item</b>	<b>Spent</b>
320 MT of grain soya, maize and sunflower produced efficient livestock feed	sillage planted as nakyesasa.	211103 Allowances (Inc. Casuals, Temporary)	75,000
3MT of forage seed produced		224006 Agricultural Supplies	59,750
		227001 Travel inland	5,000
		227004 Fuel, Lubricants and Oils	10,000
		228002 Maintenance - Vehicles	12,000
		228003 Maintenance – Machinery, Equipment & Furniture	4,000

#### Reasons for Variation in performance

<b>Total</b>	<b>165,750</b>
GoU Development	165,750
External Financing	0
AIA	0

#### Capital Purchases

#### Output: 72 Government Buildings and Administrative Infrastructure

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	1) Three livestock laboratories and one forage conservation facility maintained.	<b>Item</b>	<b>Spent</b>
	2) Two on-station field research facilities maintained.	312101 Non-Residential Buildings	200,000
	3). Four livestock production facilities maintained.		
	4). Six research handling facilities maintained.		

#### Reasons for Variation in performance

<b>Total</b>	<b>200,000</b>
GoU Development	200,000
External Financing	0
AIA	0
<b>Total For SubProgramme</b>	<b>365,750</b>
GoU Development	365,750
External Financing	0
AIA	0
<b>GRAND TOTAL</b>	<b>54,081,170</b>

---

**Vote:142** National Agricultural Research Organisation

---

**QUARTER 2: Cumulative Outputs and Expenditure by End of Quarter**

---

	Wage Recurrent	16,616,615
	Non Wage Recurrent	12,758,898
	GoU Development	24,705,657
	External Financing	0
	AIA	0

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
<b>Program: 51 Agricultural Research</b>			
<i>Recurrent Programmes</i>			
<b>Subprogram: 01 Headquarters</b>			
<i>Outputs Provided</i>			
<b>Output: 01 Generation of agricultural technologies</b>			
Supervisory report of 3 PARIs visited to back-stop management of research (two In western and one in central) Three (3) Agriculture research MOUs performance evaluated.	(1) NARO work plan and budget 2021/22 developed and presented to NARO Council	<b>Item</b> 227001 Travel inland	<b>Spent</b> 540
-Quarterly Status report on Agricultural research in Uganda	(2) 16 PARIs plans & target FY2021-22 reviewed and comments re-routed to 16 Directors of Research		
-	(3) NARO Mid-term Performance report developed		
	(4) 6 technologies with IP potential identified Technology disclosures ongoing		
	(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.		
<b>Reasons for Variation in performance</b>			
<b>Total</b>			<b>540</b>
Wage Recurrent			0
Non Wage Recurrent			540
AIA			0

### Output: 02 Research extension interface promoted and strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
- Computer supplies and IT services availed to offices with need at a time.	Promotion of NARO key technologies on World Food day	<b>Item</b>	<b>Spent</b>
		221001 Advertising and Public Relations	6,500
		221002 Workshops and Seminars	5,250
- Promotion of NARO's key messages on World Fisheries Day, Independence Day, World AIDS Day and World Food Day			
- Issues affecting technology promotion services identified in 1 PARI and intervention measures put in place. Feedback from lessons picked from supervisions provided.			
- Two regular progress review and planning meetings conducted and decisions made for action.			
- 500 NARO diaries produced.			
- NARO messages on Key radio/TV disseminated.			

### Reasons for Variation in performance

The following platforms have been re-scheduled for FY 2021-2022.

(1) 6 online platforms to support research& development in place

(2) 1 Mobile App development initiated

(3) 1 digital library platform developed.

<b>Total</b>	<b>11,750</b>
Wage Recurrent	0
Non Wage Recurrent	11,750
<i>AIA</i>	0

**Output: 04 Agricultural research capacity strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
- Improved Human Resource welfare for 995 NARO staff to enhance employee retention in order to generate technologies that support agro-industrialisation.	(1) NARO Human resource of 678 managed and maintained.	<b>Item</b>	<b>Spent</b>
		211102 Contract Staff Salaries	8,313,781
	(2) NARO motor vehicle fleet , office buildings maintained	211103 Allowances (Inc. Casuals, Temporary)	185,562
		212101 Social Security Contributions	830,831
	(3) NARO financial resource managed and maintained.	213001 Medical expenses (To employees)	75,000
		213002 Incapacity, death benefits and funeral expenses	56,250
Supervisory report of 3 PARIs visited to back-stop management of research (two in western and one in central) Three (3) Agriculture research MOUs performance evaluated		213004 Gratuity Expenses	1,135,475
- Status report on Biometrics management in 4 PARIs.		221001 Advertising and Public Relations	3,000
		221002 Workshops and Seminars	49,544
		221008 Computer supplies and Information Technology (IT)	11,200
		221009 Welfare and Entertainment	106,236
		221011 Printing, Stationery, Photocopying and Binding	18,714
		221016 IFMS Recurrent costs	25,550
- Staff who are incapacitated and those who loose their dear ones supported financially.		222001 Telecommunications	20,788
		222002 Postage and Courier	237
		222003 Information and communications technology (ICT)	10,299
- NTR,GOU Releases Verified and Reconciled in 4 PARIs. Bi-annual PBS and IFMS reports generated.		223004 Guard and Security services	30,532
		223005 Electricity	222,807
		223006 Water	5,451
- 2 Committee reports produced (and Audit & Risk Committee and Users Committee meetings convened for approval of appointments of staff and recommendations made for improved internal controls)		224001 Medical Supplies	2,900
		224004 Cleaning and Sanitation	37,427
		224005 Uniforms, Beddings and Protective Gear	3,283
		224006 Agricultural Supplies	481,265
- One (1) Quarterly Procurement progress report developed and submitted to Management.		226001 Insurances	988
		227001 Travel inland	42,920
		227004 Fuel, Lubricants and Oils	67,095
- 6 NARO community infohubs conducted in 6 agro ecological zones .		228001 Maintenance - Civil	89,270
		228002 Maintenance - Vehicles	92,836
		228003 Maintenance – Machinery, Equipment & Furniture	13,827
		228004 Maintenance – Other	54
		273102 Incapacity, death benefits and funeral expenses	7,645

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
----------------------------	------------------------------------	---	---------------

The following outputs were not achieved due to budgetary constraints:

(1) 2877.7 hectares of land surveyed for titling at serere, lugala, Nabuin and Ssendusu.

(2) 100 NARO staff & associates trained in IP.

(3) Three (3) Agriculture research MOUs performance evaluated.

(4) Status report on Biometrics management in 4 PARIs.

(5) 6 NARO community infohubs conducted in 6 agro ecological zones.

<b>Total</b>	<b>11,940,767</b>
Wage Recurrent	8,313,781
Non Wage Recurrent	3,626,986
AIA	0
<b>Total For SubProgramme</b>	<b>11,953,057</b>
Wage Recurrent	8,313,781
Non Wage Recurrent	3,639,276
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.. 500kgs of maize, 250kgs of Beans, 250 bags of Cassava and 5000 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,

Item	Spent
211103 Allowances (Inc. Casuals, Temporary)	6,295

### Reasons for Variation in performance

<b>Total</b>	<b>6,295</b>
Wage Recurrent	0
Non Wage Recurrent	6,295
AIA	0

#### Output: 04 Agricultural research capacity strengthened



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
- NACRRI research physical facilities managed and maintained. - NACRRI human resource managed and maintained.	- NACRRI research physical facilities managed and maintained. - NACRRI human resource managed and maintained.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	2,546
		221002 Workshops and Seminars	1,500
		221008 Computer supplies and Information Technology (IT)	1,550
		221009 Welfare and Entertainment	750
		221011 Printing, Stationery, Photocopying and Binding	1,436
		222001 Telecommunications	2,000
		223004 Guard and Security services	5,000
		223005 Electricity	15,000
		224004 Cleaning and Sanitation	4,000
		226001 Insurances	320
		227001 Travel inland	1,554
		227004 Fuel, Lubricants and Oils	5,000
		228002 Maintenance - Vehicles	9,011
		228003 Maintenance – Machinery, Equipment & Furniture	3,000

### Reasons for Variation in performance

	<b>Total</b>	<b>52,668</b>
	Wage Recurrent	0
	Non Wage Recurrent	52,668
	<i>AIA</i>	0
<i>Arrears</i>		
	<b>Total For SubProgramme</b>	<b>58,963</b>
	Wage Recurrent	0
	Non Wage Recurrent	58,963
	<i>AIA</i>	0

### Recurrent Programmes

#### Subprogram: 08 National Fisheries Resources Research Institute

##### Outputs Provided

##### Output: 01 Generation of agricultural technologies

- 1 Least-cost mycotoxin safe aqua feeds formulated.	1. Produced BSF larvae for use in fish feeds (250 kgs of fresh BSF larvae produced, A total of 450kgs of fish meal	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	1,575
		224006 Agricultural Supplies	5,550
- 2 fish feeds formulae based on local ingredients 1 biocontrol agent for K	2. A brochure on how to grow BSF and use it for feeding fish produced	227004 Fuel, Lubricants and Oils	1,000

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
----------------------------	------------------------------------	---	------------------

Work on going on  
(the following:

- (1) mycotoxin safe aqua feeds formulation.
- (2) shelf life live feed
- (3) fish feeds formulae based on local inputs.

**Total** **8,125**

Wage Recurrent 0

Non Wage Recurrent 8,125

AIA 0

### Output: 02 Research extension interface promoted and strengthened

200,000 fish seed (Tilapia, catfish mirror carp and Barbus) will be produced.

150,974 quality sex reversed tilapia fry produced and availed to farmers

Item	Spent
221008 Computer supplies and Information Technology (IT)	4,000
221011 Printing, Stationery, Photocopying and Binding	713
222001 Telecommunications	2,453
227001 Travel inland	1,200
227004 Fuel, Lubricants and Oils	940

### Reasons for Variation in performance

**Total** **9,305**

Wage Recurrent 0

Non Wage Recurrent 9,305

AIA 0

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
16 fish hatchery operators trained 6,000,000 sex reversed tilapia fry	1) 10,500 Nile tilapia brood stock acquired. 2). 33,350 quality sex reversed tilapia fry produced and availed to farmers. 3) Conducted routine maintenance of research physical facilities.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	7,457
		221006 Commissions and related charges	1,898
		221008 Computer supplies and Information Technology (IT)	500
		221009 Welfare and Entertainment	1,975
		221011 Printing, Stationery, Photocopying and Binding	664
		222001 Telecommunications	1,500
		222003 Information and communications technology (ICT)	6,000
		223004 Guard and Security services	6,000
		223005 Electricity	9,000
		223006 Water	5,750
		224004 Cleaning and Sanitation	4,500
		226001 Insurances	920
		227001 Travel inland	1,443
		227004 Fuel, Lubricants and Oils	2,560
		228001 Maintenance - Civil	2,500
		228002 Maintenance - Vehicles	7,407
		228003 Maintenance – Machinery, Equipment & Furniture	4,200

### Reasons for Variation in performance

<b>Total</b>	<b>64,274</b>
Wage Recurrent	0
Non Wage Recurrent	64,274
AIA	0
<b>Total For SubProgramme</b>	<b>81,704</b>
Wage Recurrent	0
Non Wage Recurrent	81,704
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 2: 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) 6 acres of multi-locational shea trials (breeding seed orchards) maintained.	1) 6 acres of multi-locational shea trials (breeding seed orchards) maintained.	<b>Item</b>	<b>Spent</b>
2) 3.5 ha of Calliandra seed stands at Kifu maintained for seed production.	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.	221002 Workshops and Seminars	625
3) Bamboo culms seasoning ongoing	4) Bamboo culms harvested and seasoning ongoing. - 22,000 high quality clonal eucalyptus plantlets raised;	224006 Agricultural Supplies	500
		227001 Travel inland	150

### Reasons for Variation in performance

<b>Total</b>	<b>1,275</b>
Wage Recurrent	0
Non Wage Recurrent	1,275
<b>AIA</b>	<b>0</b>

### Output: 02 Research extension interface promoted and strengthened

-Indigenous tree species) and waste wood products to be delivered to 500 stakeholders .	1. Design of 1 type of value added woodwaste product (Resin treated table) developed. Two epoxy treated tables from wood waste (tree stump offcuts) developed	<b>Item</b>	<b>Spent</b>
		221008 Computer supplies and Information Technology (IT)	2,748

### Reasons for Variation in performance

<b>Total</b>	<b>2,748</b>
Wage Recurrent	0
Non Wage Recurrent	2,748
<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
- Office, screenhouse and laboratories were maintained. - staff welfare improved through provision of office break tea, emergency first aid and counselling.	- Office, screen house and laboratories were maintained. - staff welfare improved through provision of office break tea, emergency first aid and counselling.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	3,150
		221002 Workshops and Seminars	1,250
		221009 Welfare and Entertainment	875
		221011 Printing, Stationery, Photocopying and Binding	987
		222001 Telecommunications	1,500
		222002 Postage and Courier	50
		222003 Information and communications technology (ICT)	2,000
		223004 Guard and Security services	6,750
		223005 Electricity	15,453
		224004 Cleaning and Sanitation	7,500
		224005 Uniforms, Beddings and Protective Gear	500
		227001 Travel inland	1,110
		227004 Fuel, Lubricants and Oils	4,000
		228001 Maintenance - Civil	3,750
		228002 Maintenance - Vehicles	5,000
		228003 Maintenance – Machinery, Equipment & Furniture	2,596

### Reasons for Variation in performance

Due to budgetary constraints there was no staff trained in teamwork building and Accountability and research proposal development.

<b>Total</b>	<b>56,472</b>
Wage Recurrent	0
Non Wage Recurrent	56,472
AIA	0
<b>Total For SubProgramme</b>	<b>60,495</b>
Wage Recurrent	0
Non Wage Recurrent	60,495
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 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
New Sorghum and pearl millet forage experiments established	1. 50 acres of land opened for Sorghum and pearl millet germplasm multiplied.	<b>Item</b>	<b>Spent</b>
		221002 Workshops and Seminars	395,207
		221006 Commissions and related charges	2,995
		221017 Subscriptions	7,511
		223004 Guard and Security services	26,000
		223005 Electricity	34,125
		224001 Medical Supplies	822,904
		224004 Cleaning and Sanitation	23,484
		224005 Uniforms, Beddings and Protective Gear	22,808
		224006 Agricultural Supplies	750,788
		225001 Consultancy Services- Short term	71,000
		228001 Maintenance - Civil	341,250
		228002 Maintenance - Vehicles	47,498
		228003 Maintenance – Machinery, Equipment & Furniture	72,000

### Reasons for Variation in performance

Work on livestock vaccine molecules development still on-going.

	<b>Total</b>	<b>2,617,570</b>
	Wage Recurrent	0
	Non Wage Recurrent	2,617,570
	<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

1) Livestock laboratories and one forage conservation facility maintained.	1) Three livestock laboratories (Animal Nutrition Laboratory, Animal health Laboratory, DETRA Laboratory) and one forage conservation facility (Cold room) maintained.	<b>Item</b>	<b>Spent</b>
3). Four livestock production facilities maintained.	2) Two on-station field research facilities maintained.	221103 Allowances (Inc. Casuals, Temporary)	18,725
4. Research handling facilities maintained	3). Four livestock production facilities maintained.	221001 Advertising and Public Relations	3,000
	4). Six research handling facilities maintained	221002 Workshops and Seminars	800
		221008 Computer supplies and Information Technology (IT)	2,750
		221009 Welfare and Entertainment	2,500
		221011 Printing, Stationery, Photocopying and Binding	1,436
		221012 Small Office Equipment	216
		224004 Cleaning and Sanitation	3,000
		226001 Insurances	320
		227001 Travel inland	888
		227004 Fuel, Lubricants and Oils	2,500
		228002 Maintenance - Vehicles	5,463

### Reasons for Variation in performance

	<b>Total</b>	<b>41,598</b>
--	--------------	---------------

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		Wage Recurrent	0
		Non Wage Recurrent	41,598
		AIA	0
		<b>Total For SubProgramme</b>	<b>2,659,169</b>
		Wage Recurrent	0
		Non Wage Recurrent	2,659,169
		AIA	0

### Recurrent Programmes

#### Subprogram: 11 National Semi arid Resources Research

##### Outputs Provided

##### Output: 01 Generation of agricultural technologies

4 trials for cotton strain lines experiments maintained on station and 3 other locations (Lira, Arua and Kasese) for yield, fibre quality attributes, quality oil and protein content.	- Analysis of results indicated that five cotton lines squared at 35 days after planting. These may indicate earliness of the cotton lines. 6 Cotton lines squared at 38-40 days (moderate) while the other 9 lines were in the range of 42-45 days after planting. Days to flowering ranged from 65-72 days after planting. Eight lines flowered at 65 days while the other 12 lines flowered at 66-72 days after planting	<b>Item</b>	<b>Spent</b>
		227001 Travel inland	4,500
		227004 Fuel, Lubricants and Oils	1,250

##### Reasons for Variation in performance

	<b>Total</b>	<b>5,750</b>
	Wage Recurrent	0
	Non Wage Recurrent	5,750
	AIA	0

##### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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 Institutional mandate strengthened through 3 consultative engagements with stakeholders	NaSARRI's Corporate Image promoted among stakeholders thru field days hosted in Napak	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	3,500
		221002 Workshops and Seminars	3,000
		221009 Welfare and Entertainment	2,000
		221011 Printing, Stationery, Photocopying and Binding	1,677
		222001 Telecommunications	2,000
		222003 Information and communications technology (ICT)	13,000
		223004 Guard and Security services	6,000
		223005 Electricity	8,000
		224004 Cleaning and Sanitation	3,500
		226001 Insurances	300
		227001 Travel inland	888
		227004 Fuel, Lubricants and Oils	1,500
		228002 Maintenance - Vehicles	6,019
		273102 Incapacity, death benefits and funeral expenses	2,000

### Reasons for Variation in performance

<b>Total</b>	<b>53,384</b>
Wage Recurrent	0
Non Wage Recurrent	53,384
AIA	0
<b>Total For SubProgramme</b>	<b>59,134</b>
Wage Recurrent	0
Non Wage Recurrent	59,134
AIA	0

### Recurrent Programmes

#### Subprogram: 12 National Laboratories Research

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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). Designs of the groundnut decorticator still ongoing	1. Protocols for production of instant-maize flour and snacks developed.	<b>Item</b>	<b>Spent</b>
2.) Design of the first prototype of manual Pulper on going	Feedback information from the markets (supermarkets, integrated markets)	222001 Telecommunications	1,250
3). Design of the first prototype of motorized pulper on going	Suitable package information fit with product certification	223005 Electricity	3,750
4). Design of the first prototype of hybrid dryer on going	2. First prototype of single row animal drawn weeder fabricated. Preliminary field testing shows that the prototype takes 3.5hours to weed 1 hectare of sorghum. It has weeding efficiency of 84%	223006 Water	2,125
5). Briquetting and shading machines used for producing briquettes installed and awaiting functionality testing	3. Four (4) units of NARO PAH fish smoking kilns ( 2 unit of NAROFIK-3-D6 and 2 units of NAROFIK-3-D4) fabricated. Kiln housing plan drawn and given to 4 private processors (Fish Farming Clusters, Kiyindi Women Fish Processors, Bwondha Women Fish Processors, and MIMUK Processors).	224006 Agricultural Supplies	88,118
		227001 Travel inland	28,320
		227004 Fuel, Lubricants and Oils	840
		228003 Maintenance – Machinery, Equipment & Furniture	750

### Reasons for Variation in performance

Work on going for banana genotypes hybrids

<b>Total</b>	<b>125,153</b>
Wage Recurrent	0
Non Wage Recurrent	125,153
<b>AIA</b>	<b>0</b>

### Output: 02 Research extension interface promoted and strengthened

one product certified by UNBS, bean and maize based product under development in collaboration with private sector SME	1. Physicochemical and nutrient composition of bean products determined. • market testing of instant maize products appropriate packages for instant maize products under development processing trials for instant bean products on-going	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	10,833
		221002 Workshops and Seminars	7,883
		221011 Printing, Stationery, Photocopying and Binding	2,000
		224006 Agricultural Supplies	151,751
		227001 Travel inland	21,200

### Reasons for Variation in performance

<b>Total</b>	<b>193,667</b>
Wage Recurrent	0
Non Wage Recurrent	193,667
<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
- 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.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	35,135
		221002 Workshops and Seminars	10,500
		221003 Staff Training	3,500
		221008 Computer supplies and Information Technology (IT)	3,600
		221009 Welfare and Entertainment	2,700
		221011 Printing, Stationery, Photocopying and Binding	3,949
		221012 Small Office Equipment	150
		222001 Telecommunications	900
		222002 Postage and Courier	25
		223004 Guard and Security services	8,270
		223005 Electricity	9,750
		224004 Cleaning and Sanitation	7,125
		227001 Travel inland	1,886
		227004 Fuel, Lubricants and Oils	13,333
		228002 Maintenance - Vehicles	19,175
		228003 Maintenance – Machinery, Equipment & Furniture	4,293
		228004 Maintenance – Other	813

### Reasons for Variation in performance

<b>Total</b>	<b>125,104</b>
Wage Recurrent	0
Non Wage Recurrent	125,104
AIA	0
<b>Total For SubProgramme</b>	<b>443,923</b>
Wage Recurrent	0
Non Wage Recurrent	443,923
AIA	0

### Recurrent Programmes

#### Subprogram: 13 Abi ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Assorted veterinary inputs acquired and procurement of experimental birds	(1) 500 layer chicks procured and being maintained	<b>Item</b>	<b>Spent</b>
		221006 Commissions and related charges	2,175
	(2) Area around six fish ponds and hatchery maintained	222001 Telecommunications	200
		224006 Agricultural Supplies	5,500
		227001 Travel inland	3,750
		228003 Maintenance – Machinery, Equipment & Furniture	10,000

### Reasons for Variation in performance

<b>Total</b>	<b>21,625</b>
Wage Recurrent	0
Non Wage Recurrent	21,625
<b>AIA</b>	<b>0</b>

### Output: 02 Research extension interface promoted and strengthened

Two more seminars conducted on nutrition focusing on nutrient enhanced.	1). Cassava composite products exhibited at the World Science Day celebrations at Kyambogo University	<b>Item</b>	<b>Spent</b>
		221002 Workshops and Seminars	3,125
	2). LSB groups profiled for crops and varieties grown, land available for production and seed demand estimates for 3 year period	221008 Computer supplies and Information Technology (IT)	1,250
		221011 Printing, Stationery, Photocopying and Binding	250
	(3) One cassava-based formula for growing chicken under evaluation		

### Reasons for Variation in performance

<b>Total</b>	<b>4,625</b>
Wage Recurrent	0
Non Wage Recurrent	4,625
<b>AIA</b>	<b>0</b>

### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Additional bags each of DAP and UREA fertilisers procured	1). Established field demonstrations of beans and maize.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	1,575
	2). 5.5 tons of Longe 5D seed harvested and cleaned	221002 Workshops and Seminars	300
		221008 Computer supplies and Information Technology (IT)	1,000
	3). 400 kg of bean seeds harvested and cleaned	221009 Welfare and Entertainment	500
		222001 Telecommunications	200
	4). Documentation of the contribution of research by NARO to the development of the cassava value chain conducted among different stakeholders in West Nile	223004 Guard and Security services	1,500
		223005 Electricity	500
		223006 Water	100
	5) Abi ZARDI human resources, financial resources, and physical resources maintained	224004 Cleaning and Sanitation	1,000
		226001 Insurances	100
		227001 Travel inland	999
		227004 Fuel, Lubricants and Oils	750
		228001 Maintenance - Civil	250
		228002 Maintenance - Vehicles	2,750
		228003 Maintenance – Machinery, Equipment & Furniture	425
		273102 Incapacity, death benefits and funeral expenses	500

### Reasons for Variation in performance

<b>Total</b>	<b>12,449</b>
Wage Recurrent	0
Non Wage Recurrent	12,449
AIA	0
<b>Total For SubProgramme</b>	<b>38,699</b>
Wage Recurrent	0
Non Wage Recurrent	38,699
AIA	0

### Recurrent Programmes

#### Subprogram: 14 Bulindi ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
	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 desmodia, Alfalfa and Brachieria brizantha respectively. On station mother gardens were maintained 2 crop (banana, and coffee). Cassava multiplication fields were maintained	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	1,750
		221002 Workshops and Seminars	1,125
		222001 Telecommunications	1,250
		223004 Guard and Security services	2,500
		223005 Electricity	2,500
		227001 Travel inland	1,150
	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		
<b>Reasons for Variation in performance</b>			
		<b>Total</b>	<b>10,275</b>
		Wage Recurrent	0
		Non Wage Recurrent	10,275
		<b>AIA</b>	<b>0</b>

**Output: 02 Research extension interface promoted and strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
More farmers trained in good agronomic practices for rice, vegetables, bananas and beans. and seed banking and water harvesting	<p>Farmers from different districts were empowered in various fields. 140 farmers trained good agronomic practices for rice, vegetables, bananas and beans. 30 farmers in seed banking and water harvesting in Kyagwali refuge settlement. Farmers were guided to onstation demos maintained. 40 farmers and 10 community based facilitators from Kagadi and Kiryandongo given guided tours of research activities and crop/livestock demos. 110 farmers received guided tours of onstation demos for rice, vegetables, bananas and bean; 13 crop (1 maize-MM3, 1 Maksoy and 10 assorted vegetables) . 2 farmer learning events on vegetable growing conducted in Kasinina and Kibiingo, Hoima district focusing on site selection, variety selection, crop protection and harvesting. Over 150 farmers participated. 16 farmers were empowered on pig (10) and goat (6) health management. Additional 11 students were empowered on goat and pig and goat health management.</p> <p>77 farmers received beans and 50 farmers received finger millet seed in the project sites (Hoima-Kyagambire and Masindi-Budondo)</p> <p>On station demonstration gardens were established. These included 10 vegetable (Green pepper, tomatoes, egg plant, cabbage, pumpkin, butternuts, nightshades, ethiopian mustard, amaranthus, and african egg plant), 1 Maize (MM3) demo established.</p>	Item	Spent

### Reasons for Variation in performance

	<b>Total</b>	<b>0</b>
	Wage Recurrent	0
	Non Wage Recurrent	0
	AIA	0

Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
2 stakeholder meetings conducted and feedback disseminated to the respective recipients	1). On station demos maintained ( Banana, coffee, and Cassava)  2). Planning Monitoring & Evaluation work shop held with all stakeholders  3). Routine maintenance of research facilities, machinery, equipment.	<b>Item</b>	<b>Spent</b>
		221002 Workshops and Seminars	1,125
		221009 Welfare and Entertainment	1,125
		221011 Printing, Stationery, Photocopying and Binding	449
		222001 Telecommunications	500
		222002 Postage and Courier	5
		223004 Guard and Security services	1,750
		223005 Electricity	8,000
		224004 Cleaning and Sanitation	2,000
		224005 Uniforms, Beddings and Protective Gear	2,750
		226001 Insurances	320
		227001 Travel inland	466
		227004 Fuel, Lubricants and Oils	876
		228002 Maintenance - Vehicles	6,750
		228003 Maintenance – Machinery, Equipment & Furniture	250
		228004 Maintenance – Other	78
		273102 Incapacity, death benefits and funeral expenses	250

### Reasons for Variation in performance

	<b>Total</b>	<b>26,694</b>
	Wage Recurrent	0
	Non Wage Recurrent	26,694
	<i>AIA</i>	0

### Arrears

	<b>Total For SubProgramme</b>	<b>36,969</b>
	Wage Recurrent	0
	Non Wage Recurrent	36,969
	<i>AIA</i>	0

### Recurrent Programmes

#### Subprogram: 15 Kachwekano ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

6 onstation ponds rehabilitated and maintained in functional state	(1) 6 on station ponds rehabilitated and maintained in functional state  (2) 24 Dairy herd maintained on station.	<b>Item</b>	<b>Spent</b>
		221011 Printing, Stationery, Photocopying and Binding	150
		224001 Medical Supplies	12,774
		227001 Travel inland	1,297
		227004 Fuel, Lubricants and Oils	227

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

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

*Reasons for Variation in performance*

<b>Total</b>	<b>14,448</b>
Wage Recurrent	0
Non Wage Recurrent	14,448
<i>AIA</i>	0

**Output: 02 Research extension interface promoted and strengthened**



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
100 farmers mobilised through 2 farmer field days to promote NAROPOT 1 and 3.	(1) 50 farmers mobilized ond one field day conducted	<b>Item</b>	<b>Spent</b>
		221011 Printing, Stationery, Photocopying and Binding	238
	(2). 44 farmers (30 males, 14 females) exposed and back stopped with apple technologies	224001 Medical Supplies	2,750
		224006 Agricultural Supplies	1,906
	(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	227001 Travel inland	2,437
		227004 Fuel, Lubricants and Oils	200
	(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		

### Reasons for Variation in performance

<b>Total</b>	<b>7,531</b>
Wage Recurrent	0
Non Wage Recurrent	7,531
A/A	0

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Routine research infrastructure, vehicles machinery and equipment maintained.	Institutional research capacity Enhanced through one (1) consultative engagements, one (1) routine research infrastructure, vehicles machinery and equipment maintained and 1 Desktop 1 internet modern and 4 hard disks procured	Item	Spent

### Reasons for Variation in performance

<b>Total</b>	<b>0</b>
Wage Recurrent	0
Non Wage Recurrent	0
AIA	0
<b>Total For SubProgramme</b>	<b>21,979</b>
Wage Recurrent	0
Non Wage Recurrent	21,979
AIA	0

### Recurrent Programmes

### Subprogram: 16 Mukono ZARDI

### Outputs Provided

### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Two technologies generated	1. Raised seedlings of (apples, 52 grafted and 198 ungrafted) 200 Eucalyptus, 2300 calliandra, 1400 Prunus, 2,400 fruit tree seedling, 600 avocado, 342 mango, 393 orange, 306 jackfruit seedlings, 600 pawpaw 2. A total of 934 seedlings were sold 3. The mother gardens at maintained and expanded Mukono and Kamenyamiggo. 4. Prepared and availed 4,495 coffee cuttings/(plantlets (3,233 at Mukono and 1,262 Kamenyamiggo station)to farmers in Mukono, Wakiso, Kayunga, Mayuge, Masaka, Lwengo and Bukomansimbi districts and these were. 5. Maintained 1.5 acres of banana demonstration at Mukono; the banana plantation at Kamenyamiggo was reduced to 5 acres to be be able to manage it better and was maintained by weeding, de-suckering, manure and fertilizer application, pest control and replacing some banana matts 6. 0.5 acres of cassava (NAROCAS 1) seed multiplication garden was maintained and 40 bags of cuttings are ready for release to farmers; 7. 40 acres of bean seed multiplications (Narobean 1 and Nabe 15) were maintained at Kamenyamiggo 8. 30 acres of maize seed were maintained at Kamenyamiggo and Mukono	<b>Item</b> 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	<b>Spent</b> 1,750 2,500 12,500 16,500 3,000 5,000 3,600 3,750

### Reasons for Variation in performance

Increased enthusiasm in improved technologies and the contribution of off-budgets.

<b>Total</b>	<b>48,600</b>
Wage Recurrent	0
Non Wage Recurrent	48,600
<i>A/A</i>	0

**Output: 04 Agricultural research capacity strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
One (1) routine maintenance of research facilities, equipment, machinery, support and utilities	One (1) routine maintenance of research facilities, equipment, machinery, support and utilities.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	5,250
		221008 Computer supplies and Information Technology (IT)	6,325
		221009 Welfare and Entertainment	1,250
		222002 Postage and Courier	150
		224004 Cleaning and Sanitation	7,218
		226001 Insurances	350
		228001 Maintenance - Civil	6,483
		228002 Maintenance - Vehicles	6,250
		228003 Maintenance – Machinery, Equipment & Furniture	2,750
		228004 Maintenance – Other	625
		273102 Incapacity, death benefits and funeral expenses	750

### Reasons for Variation in performance

<b>Total</b>	<b>37,400</b>
Wage Recurrent	0
Non Wage Recurrent	37,400
AIA	0
<b>Total For SubProgramme</b>	<b>86,000</b>
Wage Recurrent	0
Non Wage Recurrent	86,000
AIA	0

### Recurrent Programmes

#### Subprogram: 17 Ngetta ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

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	A survey to establish current status of incidence, severity and distribution of key citrus diseases occurring in northern agroecological zone of Uganda was initiated. So far, 3 districts of Kole, Amuru and Omoro have been surveyed. Data is being collected on incidence and severity of 8 target citrus diseases. Data entry on-going in preparation for the development of geo-refenced incidence maps.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	1,729
		221002 Workshops and Seminars	1,722
		221011 Printing, Stationery, Photocopying and Binding	117
		223005 Electricity	2,400
		224001 Medical Supplies	2,548
		224006 Agricultural Supplies	3,792
		227001 Travel inland	6,331
		227004 Fuel, Lubricants and Oils	232

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		<b>Total</b>	<b>18,870</b>
		Wage Recurrent	0
		Non Wage Recurrent	18,870
		<i>AIA</i>	0

### Output: 02 Research extension interface promoted and strengthened

Improved stakeholder awareness through demonstrations and exhibitions for proven agricultural research technologies enhancing; production practices on and off -station	All the varieties of beans (NAROBAN 1,2,3,4C &5C) , four(4) varieties of soybeans (MAKSOY 1N, 3N, 5N & 6N) and all the varieties of millet (NAROMIL 1,2,3,4) have been harvested. All the harvested crops are undergoing post harvest processes i.e drying, threshing and cleaning.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	854
		221002 Workshops and Seminars	225
		221011 Printing, Stationery, Photocopying and Binding	175
		224006 Agricultural Supplies	2,530
		227001 Travel inland	1,080
		227004 Fuel, Lubricants and Oils	442

### Reasons for Variation in performance

<b>Total</b>	<b>5,306</b>
Wage Recurrent	0
Non Wage Recurrent	5,306
<i>AIA</i>	0

### Output: 04 Agricultural research capacity strengthened

Ngetta ZARDI facilitated to undertake zonal mandate. Conducted routine maintenance of research facilities, equipment and machinery	Ngetta ZARDI facilitated to undertake zonal mandate. Conducted routine maintenance of vehicles, research facilities, equipment and machinery	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	672
		221011 Printing, Stationery, Photocopying and Binding	413
		223004 Guard and Security services	5,744
		223005 Electricity	2,600
		223006 Water	2,000
		224004 Cleaning and Sanitation	532
		227001 Travel inland	1,850
		227004 Fuel, Lubricants and Oils	2,000
		228002 Maintenance - Vehicles	4,400

### Reasons for Variation in performance

<b>Total</b>	<b>20,211</b>
Wage Recurrent	0
Non Wage Recurrent	20,211
<i>AIA</i>	0
<b>Total For SubProgramme</b>	<b>44,387</b>
Wage Recurrent	0
Non Wage Recurrent	44,387

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
			AIA 0

### Recurrent Programmes

#### Subprogram: 18 Nabium ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

	Item	Spent
2 (two) facilitation visits made to 2 MSIPs (once each) in Serere and Kotido, supporting value chain development for horticulture and livestock respectively	1 ) One MSIP for building capacity of beekeepers in management of apiaries, harvesting, processing of honey. Three products processing ((bee venom, honey, bees wax and propolis) in Karamoja sub-region	
	211103 Allowances (Inc. Casuals, Temporary)	1,470
	221011 Printing, Stationery, Photocopying and Binding	300
	224006 Agricultural Supplies	7,291
	227001 Travel inland	1,584
	227004 Fuel, Lubricants and Oils	810
	2) Two MISIP for enhancing commercial production and marketing of maize & sorghum, supported in the northeastern dryland agro ecological zone.	
	3) One platform for artificial insemination to improve meat and milk yield of cattle supported amongst farmers	

#### Reasons for Variation in performance

	<b>Total</b>	<b>11,455</b>
	Wage Recurrent	0
	Non Wage Recurrent	11,455
	AIA	0

#### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Awareness among communities about the transmission, impact and control of brucellosis strengthened.	1) Conducted routine maintenance of research facilities, equipment and machinery.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	8,904
		221002 Workshops and Seminars	1,500
	2) Two technology Demonstrations established for farmer learning in Moroto and Serere, and information, education and communication (IEC) materials printed.	221009 Welfare and Entertainment	500
		221011 Printing, Stationery, Photocopying and Binding	539
		222002 Postage and Courier	60
		223004 Guard and Security services	5,680
		223005 Electricity	5,304
		224004 Cleaning and Sanitation	3,250
		224005 Uniforms, Beddings and Protective Gear	600
		226001 Insurances	175
		227001 Travel inland	1,001
		227004 Fuel, Lubricants and Oils	1,760
		228001 Maintenance - Civil	2,000
		228002 Maintenance - Vehicles	3,000
		228003 Maintenance – Machinery, Equipment & Furniture	2,000
		273102 Incapacity, death benefits and funeral expenses	750

### Reasons for Variation in performance

<b>Total</b>	<b>37,023</b>
Wage Recurrent	0
Non Wage Recurrent	37,023
AIA	0
<b>Total For SubProgramme</b>	<b>48,478</b>
Wage Recurrent	0
Non Wage Recurrent	48,478
AIA	0

### Recurrent Programmes

#### Subprogram: 19 Mbarara ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
3 production technologies and innovations generated for increased production and productivity	(1). 60% of the data on growth performance and profitability of small catfish species 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.	<b>Item</b> 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	<b>Spent</b> 500 2,500 3,647 5,000 3,750 600 500 2,000
<b>Reasons for Variation in performance</b>		<b>Total</b>	<b>18,497</b>
		Wage Recurrent	0
		Non Wage Recurrent	18,497
		AIA	0

### Output: 04 Agricultural research capacity strengthened

two technological innovations delivered to uptake pathways one technological innovation platforms supported	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.	<b>Item</b> 211103 Allowances (Inc. Casuals, Temporary) 221006 Commissions and related charges 221008 Computer supplies and Information Technology (IT) 221009 Welfare and Entertainment 221011 Printing, Stationery, Photocopying and Binding 223004 Guard and Security services 224004 Cleaning and Sanitation 226001 Insurances 227001 Travel inland 227004 Fuel, Lubricants and Oils 228001 Maintenance - Civil 228002 Maintenance - Vehicles 228003 Maintenance – Machinery, Equipment & Furniture	<b>Spent</b> 5,250 2,087 1,000 750 539 3,000 2,163 320 833 2,600 3,000 5,215 2,500
---	--	--	---

### Reasons for Variation in performance

<b>Total</b>	<b>29,256</b>
Wage Recurrent	0



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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	29,256
		AIA	0
		<b>Total For SubProgramme</b>	<b>47,754</b>
		Wage Recurrent	0
		Non Wage Recurrent	47,754
		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 fo	(1) Forty two goats (11 indigenous and 31 improved Boer goat genotypes) maintained for breeding purposes at Bulegeni station.	
	211103 Allowances (Inc. Casuals, Temporary)	3,579
	221002 Workshops and Seminars	2,556
	224001 Medical Supplies	8,885
	224006 Agricultural Supplies	20,566
	227001 Travel inland	6,135
	227004 Fuel, Lubricants and Oils	2,560
	228002 Maintenance - Vehicles	6,853
	(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.	

### Reasons for Variation in performance

<b>Total</b>	<b>51,133</b>
Wage Recurrent	0
Non Wage Recurrent	51,133
AIA	0

##### Output: 04 Agricultural research capacity strengthened

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
Increased apple productivity through capacity of 200 farmers and TOTs trained in best management practices of apples.	(1) 20 apple orchards rehabilitated to improve fruiting.	<b>Item</b>	<b>Spent</b>
	(2) Farm yard manure applied in the two apple orchards at Buginyanya station. Pest and disease management done with spraying. One onfarm apple orchard maintained in Bulambuli. Other activities done include defoliation, pruning, training and nipping	211103 Allowances (Inc. Casuals, Temporary)	1,575
		221006 Commissions and related charges	1,139
		221009 Welfare and Entertainment	750
		221011 Printing, Stationery, Photocopying and Binding	539
		221012 Small Office Equipment	50
		222001 Telecommunications	2,000
		223004 Guard and Security services	7,000
		223005 Electricity	5,500
		223006 Water	2,250
		224004 Cleaning and Sanitation	2,380
		226001 Insurances	250
		227001 Travel inland	833
		227004 Fuel, Lubricants and Oils	1,800
		228001 Maintenance - Civil	2,000
		228002 Maintenance - Vehicles	3,500
		228003 Maintenance – Machinery, Equipment & Furniture	1,000
		228004 Maintenance – Other	375
		273102 Incapacity, death benefits and funeral expenses	500

### Reasons for Variation in performance

<b>Total</b>	<b>33,440</b>
Wage Recurrent	0
Non Wage Recurrent	33,440
AIA	0
<b>Total For SubProgramme</b>	<b>84,572</b>
Wage Recurrent	0
Non Wage Recurrent	84,572
AIA	0

### Recurrent Programmes

#### Subprogram: 21 Rwebitaba ZARDI

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
2,000,000 seedlings of orchard & 25 coffee mother gardens maintained	<p>1) 6100 seedlings raised [Grafted 1,400 Citrus oranges, lemons and tangerine; Grafted 1,300 Avocadoes ( Hass, Fuerte and Semil 34); Raised 2000 guava seedlings; 700 Maesopsis eminii; 700 Avocado rootstocks; 400 Lemon rootstock; 400 Calliandra calothyrsus; 200 Papaya; 100 Passion fruits</p> <p>2) Two data sets of mango growth performance obtained.</p> <p>6100 seedlings raised [Grafted 1,400 Citrus oranges, lemons and tangerine; Grafted 1,300 Avocadoes ( Hass, Fuerte and Semil 34); Raised 2000 guava seedlings; 700 Maesopsis eminii; 700 Avocado rootstocks; 400 Lemon rootstock; 400 Calliandra calothyrsus; 200 Papaya; 100 Passion fruits</p> <p>3) 92 Tea accession tissue samples were collected and delivered to NaCRRI laboratory for DNA analysis.</p>	<p><b>Item</b></p> <p>211103 Allowances (Inc. Casuals, Temporary)</p> <p>221011 Printing, Stationery, Photocopying and Binding</p> <p>224001 Medical Supplies</p> <p>224006 Agricultural Supplies</p> <p>227001 Travel inland</p> <p>227004 Fuel, Lubricants and Oils</p>	<p><b>Spent</b></p> <p>6,370</p> <p>150</p> <p>5,325</p> <p>14,510</p> <p>1,575</p> <p>980</p>

### Reasons for Variation in performance

<b>Total</b>	<b>28,910</b>
Wage Recurrent	0
Non Wage Recurrent	28,910
<i>AIA</i>	0

**Output: 04 Agricultural research capacity strengthened**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: 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 Renovating Institute breeding facility completed Quality	Conducted routine maintenance of research facilities, equipment and machinery .	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	1,575
		221002 Workshops and Seminars	406
		221009 Welfare and Entertainment	800
		221011 Printing, Stationery, Photocopying and Binding	269
		222001 Telecommunications	563
		223004 Guard and Security services	1,688
		223005 Electricity	1,125
		223006 Water	750
		224004 Cleaning and Sanitation	1,958
		224005 Uniforms, Beddings and Protective Gear	1,500
		226001 Insurances	199
		227001 Travel inland	638
		227004 Fuel, Lubricants and Oils	750
		228001 Maintenance - Civil	1,500
		228002 Maintenance - Vehicles	1,538
		228003 Maintenance – Machinery, Equipment & Furniture	782
		273102 Incapacity, death benefits and funeral expenses	500

### Reasons for Variation in performance

<b>Total</b>	<b>16,540</b>
Wage Recurrent	0
Non Wage Recurrent	16,540
AIA	0
<b>Total For SubProgramme</b>	<b>45,450</b>
Wage Recurrent	0
Non Wage Recurrent	45,450
AIA	0

### Recurrent Programmes

#### Subprogram: 26 NARO Internal Audit

#### Outputs Provided

#### Output: 03 Internal Audit

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
- Risk management policy and procedural manual discussed.	(1) Risk management policy and procedural manual discussed.	<b>Item</b>	<b>Spent</b>
- Report on High and medium risks produced.	(2) Report on High and medium risks produced.	227001 Travel inland	20,891
- Risk Register updated	(3) Risk Register updated.		
	(4) One report on CGS projects progress review produced		

### Reasons for Variation in performance

<b>Total</b>	<b>20,891</b>
Wage Recurrent	0
Non Wage Recurrent	20,891
<b>AIA</b>	<b>0</b>
<b>Total For SubProgramme</b>	<b>20,891</b>
Wage Recurrent	0
Non Wage Recurrent	20,891
<b>AIA</b>	<b>0</b>

### Recurrent Programmes

#### Subprogram: 27 National Coffee Research Institute

##### Outputs Provided

##### Output: 01 Generation of agricultural technologies

or CWD, occurrence and distribution determined in 5 coffee growing regions,	1. Additional data input for designing drone surveillance system for CWD incidence and distribution from Kakumiro, Kibaale and Kagadi districts .	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	1,155
		221011 Printing, Stationery, Photocopying and Binding	40
		224006 Agricultural Supplies	9,637
		227001 Travel inland	5,388
		227004 Fuel, Lubricants and Oils	1,500

### Reasons for Variation in performance

<b>Total</b>	<b>17,720</b>
Wage Recurrent	0
Non Wage Recurrent	17,720
<b>AIA</b>	<b>0</b>

##### Output: 02 Research extension interface promoted and strengthened

Strengthen the institute with 5 computer accessories and utilized in training farmers and extension agents	65 acres of well managed coffee production fields with optimum crop harvests.	<b>Item</b>	<b>Spent</b>
		221008 Computer supplies and Information Technology (IT)	1,200

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

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

		<b>Total</b>	<b>1,200</b>
		Wage Recurrent	0
		Non Wage Recurrent	1,200
		<i>AIA</i>	0

### Output: 04 Agricultural research capacity strengthened

Institutional research capacity strengthened through 4 (four) Advisory committee meetings, and 4 routine maintenance, 3 research papers published	- Conducted routine maintenance of research facilities, equipment and machinery Successful advisory committee and staff meetings	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	3,850
		221001 Advertising and Public Relations	625
		221006 Commissions and related charges	1,366
		221009 Welfare and Entertainment	1,138
		221011 Printing, Stationery, Photocopying and Binding	539
		222001 Telecommunications	1,846
		222002 Postage and Courier	500
		223004 Guard and Security services	9,500
		223005 Electricity	6,000
		224004 Cleaning and Sanitation	4,000
		226001 Insurances	500
		228001 Maintenance - Civil	3,000
		228002 Maintenance - Vehicles	3,750
		228003 Maintenance – Machinery, Equipment & Furniture	3,059
		273102 Incapacity, death benefits and funeral expenses	1,381

### Reasons for Variation in performance

	<b>Total</b>	<b>41,052</b>
	Wage Recurrent	0
	Non Wage Recurrent	41,052
	<i>AIA</i>	0
	<b>Total For SubProgramme</b>	<b>59,972</b>
	Wage Recurrent	0
	Non Wage Recurrent	59,972
	<i>AIA</i>	0

### Development Projects

#### Project: 0382 Support for NARO

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
- National agricultural research programmes, projects and activities monitored and evaluated.	- Conducted supervisory visits to monitor national agricultural research programmes, projects and activities in the 4 PARIs NaCRRI, NACORI, NAFIRRI and NAFORRI.	<b>Item</b>	<b>Spent</b>
- Varieties submitted to VRC		211103 Allowances (Inc. Casuals, Temporary)	464,776
- Coordinate and supervise research and development across 4PARIs in the different agro ecological zones		221001 Advertising and Public Relations	12,000
- Feasibility study, sampling, tool development and pretesting conducted.		221002 Workshops and Seminars	238,351
- Further collected of data on gaps of the R&D Investment and one final report produced.		221003 Staff Training	50,000
- One draft Financial manual developed.		221008 Computer supplies and Information Technology (IT)	13,500
- One platform with private sector convined, outcome reported for implementation.		221011 Printing, Stationery, Photocopying and Binding	17,512
- Two Projects Pre-feasibility Study undertaken.		222003 Information and communications technology (ICT)	21,000
		223004 Guard and Security services	500
		223005 Electricity	37,400
		224001 Medical Supplies	434,970
		224006 Agricultural Supplies	778,540
		225001 Consultancy Services- Short term	11,056
		227001 Travel inland	391,074
		227004 Fuel, Lubricants and Oils	43,500
		228001 Maintenance - Civil	30,000
		228002 Maintenance - Vehicles	6,000
		228003 Maintenance – Machinery, Equipment & Furniture	15,000

### Reasons for Variation in performance

The following outputs would not be achieved due to Inadquate funds

- National agricultural research programmes, projects and activities monitored and evaluated.
- Feasibility study, sampling, tool development and pretesting conducted.
- One draft Financial manual developed.
- One platform with private sector convined, outcome reported for implementation.
- Two Projects Pre-feasibility Study undertaken.

<b>Total</b>	<b>2,565,180</b>
GoU Development	2,565,180
External Financing	0
AIA	0

### Output: 02 Research extension interface promoted and strengthened

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Item	Spent
- Technologies delivered to uptake pathways (fish kiln,bio fortified and high yielding varieties)	(1) 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.	211103 Allowances (Inc. Casuals, Temporary)	60,365
- A digital library platform developed.		221001 Advertising and Public Relations	299,236
- 1 Mobile App developed	(2) 25 platforms (incubation,IP and technology dissemination and uptake).	221002 Workshops and Seminars	350,380
- NARO Information Hub, CABI compendium and other existing	(3) Meetings and outreach action plans developed with Feed the Future USAID	221003 Staff Training	15,000
		221008 Computer supplies and Information Technology (IT)	48,152
		221011 Printing, Stationery, Photocopying and Binding	63,742

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

platforms maintained.	project NARO chapter and Vision group on farm clinics,	222001 Telecommunications	4,181
- Data of various KM stakeholders collected; analysed and preliminary report produced.	(4) On IP management	222003 Information and communications technology (ICT)	7,000
- Data on NARO technology users' KAP collected and recommendations for improvement availed.	(a) - Scouting conducted in 4 PARIs 6 technologies identified and disclosed, two undergoing drafting that is; the LATERAL FLOW ASSAY FOR QUICK DETECTION OF ASF and 2 milk starter culture prototypes.	224001 Medical Supplies	50,000
- One UJAS issue published /printed	(b) One-on-One engagements organised at PARIs	224006 Agricultural Supplies	239,000
- NARO 2019/20 annual report manuscript produced.	(c) 3 IPMC meeting held and 3 recommendations on commercialization generated i.e. South African breweries- NARO, NARO-CEDO and license agreement for seed companies.	226001 Insurances	1,200
- 200 copies of assorted communication materials developed and printed		226002 Licenses	11,664
- Competence assessment studies conducted and report prepared .		227001 Travel inland	292,655
- Technology generation and dissemination needs identified through MSIPs documented, and availed to Management for decisions		227004 Fuel, Lubricants and Oils	17,900
- World Food Day organized.		228001 Maintenance - Civil	43,475
- Farm Clinics organized and coordinated in two institutes.		228002 Maintenance - Vehicles	10,000
- Partnership policy frameworks draft documents produced .		228003 Maintenance – Machinery, Equipment & Furniture	3,525
- One (1) Decisions on IP protection and Commercialisation			
- Two (2) completed IPR applications filed through the approved routes (PCT, ARIPO and national).			
- One-on-One engagements organised at PARIs			

### Reasons for Variation in performance

A number of activities were interrupted by covid-19 lock-down which include:

(1) Competence assessment studies conducted and report prepared .

(2) Technology generation and dissemination needs identified through MSIPs documented, and availed to Management for decisions.

(3) Farm Clinics organized and coordinated in two institutes.

**Total 1,517,475**



# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
		GoU Development	1,517,475
		External Financing	0
		AIA	0

### Output: 04 Agricultural research capacity strengthened

		Item	Spent
- Budget framework Paper developed.	(1) Budget framework Paper developed and submitted.	211103 Allowances (Inc. Casuals, Temporary)	85,015
- Progress towards attaining NARO KPI's documented.	(2) NARO Q2 Performance/ Status Report submitted and NARO KPI's documented. -	221001 Advertising and Public Relations	3,000
- M&E progress/ implementation reports generated	(3) Three PhD and Masters student supported to continue with training.	221002 Workshops and Seminars	52,837
- NARO Q2 Performance/ Status Report submitted to GOU/TPM	(2) NARO Human Resource performance evaluation report for FY 2020/21 in place	221003 Staff Training	47,440
- NARO Q2 research status reports submitted to GOU/TPM	(3) Conducted routine maintenance of research facilities, equipment and machinery Design plans for four (4) research facilities prepared but not yet finalised. -	221004 Recruitment Expenses	21,834
- Status report on Biometrics management in 4 PARIs	(4) Subscriptions fees for to the various professional bodies processed and paid (Engineers, lawyers, HR officers, veterinary Doctors, Internal auditors).	221008 Computer supplies and Information Technology (IT)	13,000
- 1)One Mid-term Review of Performance Plans for 16 institutes and five NAROSEC directorates facilitated.	(5) NARO financial resources managed. (a)1 central database updated,	221009 Welfare and Entertainment	22,500
- Short term skills improvement programmes conducted for 16 PARIs and NARO Secretariat;	(b) Budget Monitoring and supervision as per the IFMS requirements carried out in the institutes of Rwebitaba, Mbarara, KaZARDI, NaCRRI and NARL.	221011 Printing, Stationery, Photocopying and Binding	33,208
- 5 NARO staff supported to undertake MSc and PHD study programmes;	(5) Assorted office stationery supplied .	221012 Small Office Equipment	11,000
- Annual subscription paid for 30 NARO Staff who belong to professional bodies.	(a) Supply of Assorted Stationery	221016 IFMS Recurrent costs	25,950
- 1Central Database updated and Reports for GOU and donors produced.	(b) Printing of Assorted Information Material	221017 Subscriptions	9,983
- IFMS Periodical NARO wide budget performance and general budgetary monitoring and evaluation in 5 institutes reports prepared.	(c) Supply of Assorted Toners Supply of Tonner for Heavy Duty Photocopiers	222003 Information and communications technology (ICT)	5,500
- Information on research products delivered to stakeholders through	(d) Printing of NARO Customised Letter Heads	223004 Guard and Security services	500
	(6) Facilitated NARO committee meetings	223005 Electricity	6,000
	(7) Developed and printed information and communication materials as supplies were delivered, payment effected and Contract	223006 Water	6,000
		224001 Medical Supplies	5,000
		224004 Cleaning and Sanitation	500
		224006 Agricultural Supplies	60,290
		225001 Consultancy Services- Short term	32,499
		226002 Licenses	20,653
		227001 Travel inland	281,065
		227004 Fuel, Lubricants and Oils	119,749
		228001 Maintenance - Civil	70,776
		228002 Maintenance - Vehicles	86,000
		228003 Maintenance – Machinery, Equipment & Furniture	111,397
		228004 Maintenance – Other	8,359

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

12 TV programs on UBC, Bukedde TV+ TV West& 1 Media Centre Appearance conducted.	closed.follows: (a) Supply of Promotional Items for Stakeholders
- Sixteen (16) procurement status Reports developed with details of evaluations reports approved, contracts committee minutes attached and procurement lead times posted on the PPDA Portal	(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
	(f) Development of NARO Wide Brand Reputation Services
	(g) Documentary Services-Phase 2,3 and 4
	(h) Events Management Services
	(i) Supply of Uniforms, Beddings and Protective Gear Printing, Stationery and Binding
	(j) Printing of NARO Annual Report
	(k) Printing of UJAS journal
	(l) Printing of Compendium Booklets
	(8) Supply and Installation of Electricity and Lightening Conductors in Kalyengyere

### Reasons for Variation in performance

The following outputs would not be achieved due to Inadquate funds released and coivd-19 restrictions:

- (1) Status report on Biometrics management in 4 PARIs.
- (2) Short term skills improvement programmes conducted for 16 PARIs and NARO Secretariat;
- (3) NARO wide budget performance and general budgetary monitoring and evaluation in 5 institutes reports prepared. -
- (4) Information on research products delivered to stakeholders through 12 TV programs on UBC, Bukedde TV+ TV West& 1 Media Centre Appearance conducted.

<b>Total</b>	<b>1,140,056</b>
GoU Development	1,140,056
External Financing	0
AIA	0

### Outputs Funded

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

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	UShs Thousand
NARO's subscription to 4 international organisations (AfricaRice, ASARECA, CABI, ITGRI.) maintained	NARO contribution to International agencies effected. Africa Rice for the year 2020	<b>Item</b> 262201 Contributions to International Organisations (Capital)	<b>Spent</b> 185,877
- Contributions to autonomous institutions obligations honoured			
<i>Reasons for Variation in performance</i>			
		<b>Total</b>	<b>185,877</b>
		GoU Development	185,877
		External Financing	0
		AIA	0

*Capital Purchases*

**Output: 72 Government Buildings and Administrative Infrastructure**

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
Two ( 2) buildings rennovated at MuZARDI	(1) Construction of Staff Houses at Kigumba. Civil works completed and Site handed over.	<b>Item</b> 281504 Monitoring, Supervision & Appraisal of Capital work	<b>Spent</b> 116,113
- A brief for the Master plan developed and baseline analysis conducted.	(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 312102 Residential Buildings 312104 Other Structures	7,644,959 281,842 1,085,366
	(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) Contract signed. Site handed over to contractor. Advance paid and civil works in progress for: (a) Construction of an Aflasafe Facility at NaLIRRI-Nakyesasa (b) Construction of a Multipurpose Vaccine Facility in NaLIRRI-Nakyesasa		
	(8) The following contracts were signed, civil works completed and structure handed over: (a) Construction of Hayban (b) Construction of Grain and Silage Bank (c) Setting Up of a Wall Fence at Nakyesasa		
	(8) The following contracts were signed, civil works on going : (a) Proposed Construction of Aquatic Diagnostics Lab at Kajjansi. (b) Road Network at Nalirri		

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

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

The following procurement were not handled due to lack of funds:

- (1) Environmental Impact Assessment for Capital Works
- (2) Feasibility Studies for Capital Works
- (3) Master Plan Infrastructural Plan including stores designs  
Engineering and Design Studies for Capital Works
- (4) Construction of an Administration Block at NARL-Namalere
- (5) Construction of a Fish Floating Feed Structure
- (6) Construction of a Screen House at NaFORRI
- (7) Rehabilitation of an Incubation Center
- (8) Construction of a Seed Cleaning Facility
- (9) Construction of a Crush, Wall Fence, Dip at NaLIRRI-Nakyesasa

<b>Total</b>	<b>9,128,280</b>
GoU Development	9,128,280
External Financing	0
AIA	0

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

	Item	Spent
- Small office equipment and others purchased .	Supplies delivered, payment effected and Contract closed for the following:	
- Consultancies for ICT for effective and efficient ICT service delivery.	(1) Supply and Installation of Board Portal Software	312213 ICT Equipment 244,860
- Desktop and Server software updated/upgraded for high data availability, resilience and performance.	(2) ICT Intervention WAN phase one	
	(3) Network Switch and Router delivered.	
	(4) Supply and Installation of Software for a dedicated cloud server.	
- Single signon identity management system developed for purposes of authenticating and authorising users to access and use NARO services .		
- 6 Laptop procured		
- Internet services for PARIs maintained to support exchange of information to and from NARO .		

### Reasons for Variation in performance

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
----------------------------	------------------------------------	---	---------------

Procurement in the pipeline include:

(1) Supply of Assorted IT Equipment -Lot.1-All in One Desktop-Lot.2-Desktop Computers, Lot.3-Laptops, Lot.4-UPSs

(2) Supply and Installation of Audio Visual Equipment

(3) ICT Intervetion (WAN.

<b>Total</b>	<b>244,860</b>
GoU Development	244,860
External Financing	0
AIA	0

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

		Item	Spent
- Equipment and machinery for installation of One (1) product's production pipeline procured .	1) Advance payment effected. for supply of specialised In vitro embryology equipment.	312202 Machinery and Equipment	459,759
- Equipment and machinery for installation of two (2) product's production pipeline installed .	(2) Supplies delivered, payment effected and contract closed for the installation of fish capsulation machine.	312214 Laboratory Equipments	1,849,409
- Small office equipment for the incubation centre procured	(3) Contract signed. Advance Payment effected. Awaiting for delivery of specialized laboratory & vaccine equipment .		
	(4) 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

Procurement in pipeline include the following:

(1) Supply and Installation of Incubation Equipment & Assorted Machinery.

(2) Supply and Installation of Floating Fish Feed Equipment

(3) Supply of Machinery & Equipment for avocado project

(4) Supply of Tractors with Assorted Implements

<b>Total</b>	<b>2,309,168</b>
GoU Development	2,309,168
External Financing	0
AIA	0

### Output: 78 Purchase of Office and Residential Furniture and Fittings

		Item	Spent
Three research facilities furnished (NaCORI multipurpose laboratory, Nakyesasa livestock research facility and vaccinology facility at Nakyesasa) Four residential houses furnished	-	312203 Furniture & Fixtures	10,000

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

Outputs Planned in Quarter	Actual Outputs Achieved in Quarter	Expenditures incurred in the Quarter to deliver outputs	US\$ Thousand
----------------------------	------------------------------------	---	---------------

### Reasons for Variation in performance

Contract not signed due to insufficient funds.

(a) Supply of Furniture & Fittings to PARIs and NARO Secretariat. Tendering process concluded. Contract awarded to M/S Nina Interiors (U) Ltd. On going

<b>Total</b>	<b>10,000</b>
GoU Development	10,000
External Financing	0
AIA	0
<b>Total For SubProgramme</b>	<b>17,100,896</b>
GoU Development	17,100,896
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

Maintain trials planted on station (1) 5 acres, of Maize, 5 acres of Soya and 4 acres of Sun flower . 2) 86 acres of maize sillage planted as nakyesasa.	Maintain trials planted on station (1) 5 acres, of Maize, 5 acres of Soya and 4 acres of Sun flower . 2) 86 acres of maize sillage planted as nakyesasa.	<b>Item</b>	<b>Spent</b>
		211103 Allowances (Inc. Casuals, Temporary)	45,000
		224006 Agricultural Supplies	34,750
		227001 Travel inland	2,500
		227004 Fuel, Lubricants and Oils	2,500
		228002 Maintenance - Vehicles	2,000
		228003 Maintenance – Machinery, Equipment & Furniture	3,000

### Reasons for Variation in performance

<b>Total</b>	<b>89,750</b>
GoU Development	89,750
External Financing	0
AIA	0

### Capital Purchases

#### Output: 72 Government Buildings and Administrative Infrastructure

Finalize renovations of grain store, staff residential block, Water and electricity supply, infrastructure master plan and 1 kilometer	1) Three livestock laboratories and one forage conservation facility maintained.	<b>Item</b>	<b>Spent</b>
	2) Two on-station field research facilities maintained.	312101 Non-Residential Buildings	200,000
	3). Four livestock production facilities maintained.		
	4). Six research handling facilities maintained.		

# Vote:142 National Agricultural Research Organisation

## QUARTER 2: Outputs and Expenditure in Quarter

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

*Reasons for Variation in performance*

	<b>Total</b>	<b>200,000</b>
GoU Development		200,000
External Financing		0
AIA		0
<b>Total For SubProgramme</b>		<b>289,750</b>
GoU Development		289,750
External Financing		0
AIA		0
<b>GRAND TOTAL</b>		<b>33,242,241</b>
Wage Recurrent		8,313,781
Non Wage Recurrent		7,537,813
GoU Development		17,390,646
External Financing		0
AIA		0



# Vote:142 National Agricultural Research Organisation

## QUARTER 3: Revised Workplan

<i>US\$ Thousands</i>	<b>Planned Outputs for the Quarter</b>	<b>Estimated Funds Available in Quarter (from balance brought forward and actual/expected releases)</b>		
-----------------------	--	---	--	--

### Program: 51 Agricultural Research

#### Recurrent Programmes

### Subprogram: 01 Headquarters

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

16 PARIs plans & target FY2021-22 set 1 NARO Mid-term Performance report developed	<b>Item</b>	<b>Balance b/f</b>	<b>New Funds</b>	<b>Total</b>
	221002 Workshops and Seminars	20,000	0	20,000
-	227001 Travel inland	4,187	0	4,187
	<b>Total</b>	<b>24,187</b>	<b>0</b>	<b>24,187</b>
	<b>Wage Recurrent</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Non Wage Recurrent</b>	<b>24,187</b>	<b>0</b>	<b>24,187</b>
	<b>AIA</b>	<b>0</b>	<b>0</b>	<b>0</b>

#### Output: 02 Research extension interface promoted and strengthened

1) One digital library platform enhanced.	<b>Item</b>	<b>Balance b/f</b>	<b>New Funds</b>	<b>Total</b>
2) Promotion of NARO key technologies through meetings and farm clinics,	221001 Advertising and Public Relations	10,567	0	10,567
	221002 Workshops and Seminars	2,113	0	2,113
	221008 Computer supplies and Information Technology (IT)	3,000	0	3,000
	227001 Travel inland	3,025	0	3,025
	<b>Total</b>	<b>18,704</b>	<b>0</b>	<b>18,704</b>
	<b>Wage Recurrent</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Non Wage Recurrent</b>	<b>18,704</b>	<b>0</b>	<b>18,704</b>
	<b>AIA</b>	<b>0</b>	<b>0</b>	<b>0</b>

# Vote:142 National Agricultural Research Organisation

## QUARTER 3: Revised Workplan

### Output: 04 Agricultural research capacity strengthened

	Item	Balance b/f	New Funds	Total
1) NARO Human resource of 678 managed and maintained.	211103 Allowances (Inc. Casuals, Temporary)	202,189	0	202,189
2) Boundaries of 3 TVCs of Kumi, Lugala and Bugusege opened and land surveyed for proper identification.	221001 Advertising and Public Relations	18,375	0	18,375
3) NARO physical resources (motor vehicle fleet , office buildings, equipment) maintained.	221002 Workshops and Seminars	2,899	0	2,899
	221003 Staff Training	12,850	0	12,850
4) NARO wide Performance Mid-term report 100 NARO staff & associates trained in IP	221008 Computer supplies and Information Technology (IT)	11,004	0	11,004
5) NARO Council oversight role strengthened.	221009 Welfare and Entertainment	20,272	0	20,272
	221011 Printing, Stationery, Photocopying and Binding	1,313	0	1,313
	221012 Small Office Equipment	3,000	0	3,000
	221016 IFMS Recurrent costs	22,360	0	22,360
	222001 Telecommunications	36,044	0	36,044
	222002 Postage and Courier	4,406	0	4,406
	222003 Information and communications technology (ICT)	9,659	0	9,659
	223004 Guard and Security services	46,393	0	46,393
	223005 Electricity	118,259	0	118,259
	223006 Water	3,507	0	3,507
	224001 Medical Supplies	20,842	0	20,842
	224004 Cleaning and Sanitation	28,473	0	28,473
	224005 Uniforms, Beddings and Protective Gear	22,141	0	22,141
	224006 Agricultural Supplies	79,429	0	79,429
	225001 Consultancy Services- Short term	970	0	970
	226001 Insurances	98,920	0	98,920
	227001 Travel inland	69,311	0	69,311
	227004 Fuel, Lubricants and Oils	68,432	0	68,432
	228001 Maintenance - Civil	439,115	0	439,115
	228002 Maintenance - Vehicles	135,872	0	135,872
	228003 Maintenance – Machinery, Equipment & Furniture	84,655	0	84,655
	228004 Maintenance – Other	31,404	0	31,404
	273102 Incapacity, death benefits and funeral expenses	1,655	0	1,655
	<b>Total</b>	<b>1,593,748</b>	<b>0</b>	<b>1,593,748</b>
	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Non Wage Recurrent</i>	<i>1,593,748</i>	<i>0</i>	<i>1,593,748</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>

# Vote:142 National Agricultural Research Organisation

## QUARTER 3: Revised Workplan

### Subprogram: 26 NARO Internal Audit

#### Outputs Provided

#### Output: 03 Internal Audit

	Item	Balance b/f	New Funds	Total
1) Develop and test generate one tool for reporting risk trends	221002 Workshops and Seminars	8,833	0	8,833
2) Audit performance reports	221003 Staff Training	1,250	0	1,250
3) Procurement compliance Audit reports	227001 Travel inland	499	0	499
	<b>Total</b>	<b>10,581</b>	<b>0</b>	<b>10,581</b>
4) Undertake one value for money audit report .	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Non Wage Recurrent</i>	<i>10,581</i>	<i>0</i>	<i>10,581</i>
	<i>AIA</i>	<i>0</i>	<i>0</i>	<i>0</i>

#### Development Projects

### Project: 0382 Support for NARO

#### Outputs Provided

#### Output: 01 Generation of agricultural technologies

	Item	Balance b/f	New Funds	Total
- Continue the evaluation of six livestock vaccines	211103 Allowances (Inc. Casuals, Temporary)	62	0	62
- Continue the field evaluation of 40 crop lines at various stages (AYT, NPT, and DUS)	221002 Workshops and Seminars	108,290	0	108,290
	224006 Agricultural Supplies	50,000	0	50,000
	227001 Travel inland	88,139	0	88,139
	<b>Total</b>	<b>246,491</b>	<b>0</b>	<b>246,491</b>
	<i>GoU Development</i>	<i>246,491</i>	<i>0</i>	<i>246,491</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>

#### Output: 02 Research extension interface promoted and strengthened

	Item	Balance b/f	New Funds	Total
Continue the delivery of improved agricultural technologies, innovations, information and management practices to the farming community for season B.	211103 Allowances (Inc. Casuals, Temporary)	12,300	0	12,300
	221001 Advertising and Public Relations	53,859	0	53,859
	221002 Workshops and Seminars	219,229	0	219,229
	221011 Printing, Stationery, Photocopying and Binding	5,024	0	5,024
	222003 Information and communications technology (ICT)	6,309	0	6,309
	225001 Consultancy Services- Short term	4,110	0	4,110
	226002 Licenses	45	0	45
	227001 Travel inland	48,322	0	48,322
	<b>Total</b>	<b>349,198</b>	<b>0</b>	<b>349,198</b>
	<i>GoU Development</i>	<i>349,198</i>	<i>0</i>	<i>349,198</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 3: Revised Workplan

### Output: 04 Agricultural research capacity strengthened

Conduct routine maintenance of agricultural research infrastructure and work place.

Item	Balance b/f	New Funds	Total
211103 Allowances (Inc. Casuals, Temporary)	15,000	0	15,000
221002 Workshops and Seminars	43,806	0	43,806
221003 Staff Training	10,060	0	10,060
221004 Recruitment Expenses	520	0	520
221008 Computer supplies and Information Technology (IT)	10,000	0	10,000
221011 Printing, Stationery, Photocopying and Binding	6,405	0	6,405
221016 IFMS Recurrent costs	24,050	0	24,050
221017 Subscriptions	17	0	17
222002 Postage and Courier	50	0	50
223002 Rates	182,500	0	182,500
225001 Consultancy Services- Short term	38,542	0	38,542
226002 Licenses	29,347	0	29,347
227001 Travel inland	83,048	0	83,048
227004 Fuel, Lubricants and Oils	40,161	0	40,161
228001 Maintenance - Civil	98,943	0	98,943
228002 Maintenance - Vehicles	1,877	0	1,877
228003 Maintenance – Machinery, Equipment & Furniture	3,135	0	3,135
228004 Maintenance – Other	1,181	0	1,181
<b>Total</b>	<b>588,641</b>	<b>0</b>	<b>588,641</b>
<b>GoU Development</b>	<b>588,641</b>	<b>0</b>	<b>588,641</b>
<b>External Financing</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>AIA</b>	<b>0</b>	<b>0</b>	<b>0</b>

### Outputs Funded

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

NARO contribution to international organizations effected

Item	Balance b/f	New Funds	Total
262201 Contributions to International Organisations (Capital)	84,095	0	84,095
<b>Total</b>	<b>84,095</b>	<b>0</b>	<b>84,095</b>
<b>GoU Development</b>	<b>84,095</b>	<b>0</b>	<b>84,095</b>
<b>External Financing</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>AIA</b>	<b>0</b>	<b>0</b>	<b>0</b>

# Vote:142 National Agricultural Research Organisation

## QUARTER 3: Revised Workplan

### 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).	<b>Item</b>	<b>Balance b/f</b>	<b>New Funds</b>	<b>Total</b>
	281501 Environment Impact Assessment for Capital Works	15,000	0	15,000
	281502 Feasibility Studies for Capital Works	15,000	0	15,000
	281503 Engineering and Design Studies & Plans for capital works	15,000	0	15,000
	281504 Monitoring, Supervision & Appraisal of Capital work	116,568	0	116,568
	312101 Non-Residential Buildings	14,447	0	14,447
	312104 Other Structures	244,438	0	244,438
	<b>Total</b>	<b>420,452</b>	<b>0</b>	<b>420,452</b>
	<i>GoU Development</i>	<i>420,452</i>	<i>0</i>	<i>420,452</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>

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

- Roll-out NARO WAN into 4 PARIs.	<b>Item</b>	<b>Balance b/f</b>	<b>New Funds</b>	<b>Total</b>
	312213 ICT Equipment	100,000	0	100,000
	<b>Total</b>	<b>100,000</b>	<b>0</b>	<b>100,000</b>
	<i>GoU Development</i>	<i>100,000</i>	<i>0</i>	<i>100,000</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>

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

Acquire an assortment of field , office and laboratory equipment for livestock research	<b>Item</b>	<b>Balance b/f</b>	<b>New Funds</b>	<b>Total</b>
	312202 Machinery and Equipment	57,241	0	57,241
	312214 Laboratory Equipments	1,591	0	1,591
	<b>Total</b>	<b>58,832</b>	<b>0</b>	<b>58,832</b>
	<i>GoU Development</i>	<i>58,832</i>	<i>0</i>	<i>58,832</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>

#### Output: 78 Purchase of Office and Residential Furniture and Fittings

Acquire an assortment of field , office and laboratory fittings for livestock research and NARO Secretariat	<b>Item</b>	<b>Balance b/f</b>	<b>New Funds</b>	<b>Total</b>
	312203 Furniture & Fixtures	92	0	92
	<b>Total</b>	<b>92</b>	<b>0</b>	<b>92</b>
	<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>
	<b>GRAND TOTAL</b>	<b>3,495,022</b>	<b>0</b>	<b>3,495,022</b>
	<i>Wage Recurrent</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Non Wage Recurrent</i>	<i>1,647,221</i>	<i>0</i>	<i>1,647,221</i>

**Vote:142** National Agricultural Research Organisation

**QUARTER 3: Revised Workplan**

<i>GoU Development</i>	<i>1,847,801</i>	<i>0</i>	<i>1,847,801</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>