# Vote: 110 Uganda Industrial Research Institute

## QUARTER 4: Highlights of Vote Performance

### *V1: Summary of Issues in Budget Execution*

*This section provides an overview of Vote expenditure*

**(i) Snapshot of Vote Releases and Expenditures**

Table V1.1 below summarises cumulative releases and expenditures by the end of the quarter:

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

| *(i) Excluding Arrears, Taxes* | | Approved Budget | Cashlimits by End | Released by End | Spent by End Jun | % Budget Released | % Budget Spent | % Releases Spent |
|---|---|---|---|---|---|---|---|---|
| Recurrent | Wage | 3.720 | 3.720 | 3.720 | 3.720 | 100.0% | 100.0% | 100.0% |
| | Non Wage | 2.197 | 2.185 | 1.951 | 1.951 | 88.8% | 88.8% | 100.0% |
| Development | GoU | 8.323 | 7.344 | 7.557 | 7.471 | 90.8% | 89.8% | 98.9% |
| | Donor* | 0.000 | N/A | 0.000 | 0.000 | N/A | N/A | N/A |
| | **GoU Total** | **14.240** | **13.249** | **13.229** | **13.143** | **92.9%** | **92.3%** | **99.3%** |
| **Total GoU+Donor (MTEF)** | | **14.240** | **N/A** | **13.229** | **13.143** | **92.9%** | **92.3%** | **99.3%** |
| *(ii) Arrears and Taxes* | *Arrears* | *0.000* | *N/A* | *0.000* | *0.000* | *N/A* | *N/A* | *N/A* |
| | *Taxes** | *0.000* | *N/A* | *0.000* | *0.000* | *N/A* | *N/A* | *N/A* |
| | **Total Budget** | **14.240** | **13.249** | **13.229** | **13.143** | **92.9%** | **92.3%** | **99.3%** |
| *(iii) Non Tax Revenue* | | *0.100* | *N/A* | *0.000* | *0.000* | *0.0%* | *0.0%* | *N/A* |
| | **Grand Total** | **14.340** | **13.249** | **13.229** | **13.143** | **92.2%** | **91.6%** | **99.3%** |
| Excluding Taxes, Arrears | | *14.340* | *13.249* | *13.229* | *13.143* | 92.2% | 91.6% | 99.3% |

* *Donor expenditure information available* ** *Non VAT taxes on capital expenditure*

The table below shows cumulative releases and expenditures to the Vote by Vote Function :

**Table V1.2: Releases and Expenditure by Vote Function***

| *Billion Uganda Shillings* | Approved Budget | Released | Spent | *% Budget Released* | *% Budget Spent* | *% Releases Spent* |
|---|---|---|---|---|---|---|
| VF:0651 Industrial Research | 14.34 | 13.23 | **13.14** | *92.2%* | *91.6%* | *99.3%* |
| **Total For Vote** | **14.34** | **13.23** | **13.14** | ***92.2%*** | ***91.6%*** | ***99.3%*** |

* *Excluding Taxes and Arrears*

**(ii) Matters to note in budget execution**

During FY 15/16 the major challenges faced by the institute while executing the budget include but not limited to:

1.Inadequate budget allocation under MTEF (UIRI should be funded with 21bn per financial year as per NDP aspirations)

2.Continued deficits between allocated and actual released budget funds (UIRI has a shortfall of 1.01bn)

3.Lack of counterpart funding (USD 590,000) to facilitate project preparation for Machining, Manufacturing and Industrial Skills Training Centre (MMISTC), Kampala Industrial Business Parks (KIBP), Namanve.

4.The USD 2M promised by government as supplementary to MSI Project (2007-2012) has never materialized. The World bank had offered to fund USD 2M however MOFPED declined on the basis that they could provide the funding as per commitment but in vain

5.Requirement of counterpart funding of equivalent R2M for Essential Oil Project has not yet materialized

6.Inadequate budget. UIRI requires a one off UGX 24.8bn to be able to fast track progress on Research and Development Projects, technology transfer and business incubation

## QUARTER 4: Highlights of Vote Performance

7.Slow technology uptake
8.Disconnect in priority planning and financing
9.Un-facilitated business environment for local entrepreneurs
10.Insufficient staffing (230 positions in the staff structure remain unfilled) UIRI requires UGX 1.2bn for recruitment of high caliber scientist & engineers and 2.4bn retention of its workforce as the institute is currently faced with a very high staff turnover.
11.Lack of funds to support commercialization of innovations, technologies and products (Industrialization and Innovation Fund)
12.Inadequate remuneration for retention of highly skilled scientists and engineers
13.Absence of critical technical skills
14.Project life span vis via actual completion due to funding gaps
15.Weak inter-institutional cohesion and cooperation
16.Limited levels of entrepreneurial competences in our society / Low entrepreneurial spirit
17.Decrepit infrastructure and limited connectivity
18.Governmental and societal ambivalence with regard to R&D

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

| |
|---|
| ***(i) Major unpsent balances*** |
| |
| ***(ii) Expenditures in excess of the original approved budget*** |
| |

* *Excluding Taxes and Arrears*

## *V2: Performance Highlights*

*This section provides highlights of output performance, focusing on key outputs and actions impelemented to improve section performance.*

**Table V2.1: Key Vote Output Indicators and Expenditures***

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| ***Vote Function: 0651 Industrial Research*** | | | |
| **Output: 065101** | **Administation and Support Services** | | |
| *Description of Performance:* | - Recruit 45 New Employees | - 2 New Employees were recruited | |
| | -Undertake staff training and skills development | - 2 Employees left the Institute | |
| | - Pay off current staff salaries and benefits | - Salarie and benefits of 259 employees were paid | |
| | - Insure Institute Assets Equipment, Vehicles, IT Servers and IT Equipment | - Insured Institute Assets Equipment, Vehicles, IT Servers and IT Equipment | |
| | Subscriptions<br>Online Membership subscription for<br>1.AOAC (Association of Analytical Chemists<br>2.American Public Health Association<br>3.Science Direct Journal.<br>4.Laboratory Proficiency Testing Schemes (PTS)<br>5.Annual Subscription for<br>•PTS,<br>•AgriLASA, | - Paid for some Subscriptions | |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | •EAC<br>•SADCMET<br>•FAPAS (as a requirement for Accreditation of the laboratory) | | |
| *Output Cost:* | UShs Bn: 6.018 | UShs Bn: 5.671 | % Budget Spent: 94.2% |
| **Output: 065102** | **Research and Development** | | |
| *Description of Performance:* | Research and development<br>The different sections engaged in Research and Development shall undertake as follows<br>Production Systems shall<br>1.Formulate and develop chicken feeds out of the bio waste of fruit waste<br>2.Formulate and develop Jackfruit jam<br>3.Formulate and develop Pomegarnate juice<br>4.Formulate and develop Sugar cane syrup and jam<br>5.Formulate and develop healthy Green tea drinks<br>6.Formulate and develop healthy cocktail (pumpkin, lemon & passion)<br>7.Formulate and develop pumpkin powder<br>Under the Food Laboratory<br>8.Food Laboratory remains committed to undertake food product development, and related research<br>9.Study the stability of curcuminoids and lignans in foods<br>10.Analysis of milk using lactoscan hence the need to procure consumable materials including alkali<br>11.Analysis of juices for TTA, Phhe need to procure consumable materials including indicator<br>12.Testing products under development for temperature, moistureQ1,Q2, Q3Moisturemeter<br>13.Carryingout milk platform tests he need to procure consumable materials including a base<br>14.3 types of Breakfast cereals will be madehence the need to procure, production materials including raw materials and packaging<br>15.4 types of Instant porridges will be madehe need to procure production materials including | UIRI continues to provides product and industrial process development services through<br>•Product formulation and development<br>•Testing and microbiological and chemical quality assurance;<br>•Provision of analytical services, since chemical composition and microbiological quality is a critical determinant of competitiveness of manufactured products.<br>•As a modern research center we facilitate utilization of biological and biochemical systems for transformation of natural resources for economic benefits.<br>•Process designs<br>•Appropriate technology design | The 1.64bn FY 15/16 shortfall caused delays for most projects for instance delyed processing of second installment to AVI-farms for production eggs have crippled our ability to meet special order request arrangements we have with organisations such as BRAC Uganda<br>Stability Trials for Introduction of new dosage forms for 100 and 200 doses Dossier Compiled and Awaiting Submission once funds are available None<br>A number of model value addition centers delayed |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | raw materials, packaging, emulsifiers, stabilisers and preservatives<br>16.2 types of nooddles from local food material will be developedhe need to procure production materials including appropriate packaging<br>17. 7 gas mixtures for MAP packaged fruits, vegetables, meats, bakery products, dairy products will be developedhe need to procure raw materials and appropriate packaging<br>18.5 levels of Production of pectinhe need to procure production materials<br>19.Develop breakfast cereals, instant porridges, nooddles from local foods like cassava and sweet potato<br>20.Improve on food packaging technologies for meats, fruits, vegetables, baked products using modified atmosphere packaging (MAP) as a preservation procedure that doesn't use chemicals<br>21.Producing pectin from fruit wastes, extraction of plant and animal materials that can be used as ingredients during product development.<br>22.Enable physical preservation of fluid foods at laboratory level before packaging<br>23.Fast and efficient drying of food products during product development<br>Microbiology shall develop 3 Products<br><br>24.Research & development of shea/Bentonate Anti-Acne, anti-wrinkle creams, shampoo, face scrub, toner & moisturizer 1st, 2nd, 3rd and 4th QuartersChemicals& reagents for cosmetics formulation<br>25.Research & development of an antibacterial soap 1st, 2nd, 3rd and 4th QuartersChemicals & reagents for cosmetics formulation<br>26.Research & development of Spirulina1st, 2nd, 3rd and 4th QuartersLaboratory consumables<br>Research projects applied shall include<br>27.Design & Dev't of | | |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | production process of an antibacterial herbal remedy1st, 2nd, 3rd and 4th QuartersMaterials & Equipment<br>28.Field trial of Aflatoxin Biosensor in Arua 2nd QuarterMaterials, Equipment and subsistence allowances<br>Research Projects shall be initiated shall include<br>29.Pro-Lactic acid production from cassava1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances<br>30.Bioplastics development 1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances<br>31.Biosurfactants for environmental bioremediation1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances<br>32.Biosensors and Bioengineering1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances<br>Chemistry laboratory<br>33.Routine Laboratory analysis, Research & Development<br>34.Procurement of Laboratory standards chemicals, Reagents, Apparatus and other lab materials.<br>35.Procurement for Soxtec system (Fat content), Fibertec system(fiber content) & Kjeltec system (protein)<br>36.No. of product analyses undertaken1000Routine analysis of External and Internal laboratory samples, food, juice, water & waste water, drugs, minerals, soap, Detergents, cosmetics, natural products and petroleum products<br>The Chemistry Laboratory shall undertake five product formulations<br>37.Formulation of shoe polish,<br>38.car polish,<br>39.sanitizers,<br>40.match box, and<br>41.Anti-microbial agents using local raw materials in Uganda<br>The Chemistry Laboratory Research projects shall include. | | |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | 42.Antimicrobial activity of banana flowers extract against bacteria<br>43.Application of zeolites in removal of heavy metals in wastewater.<br>44.Isolation of curcuminoids from turmeric plant.<br>45.Commercialization of flavored clay pot water<br>The Materials and Minerals Engineering Division<br>The Materials and Minerals Engineering Division looks to innovate the following new technologies<br>46.Production of recycled Glass Products<br>47.Production of concrete Tiles and Pavers<br>48.Production of plastic Recycled Products<br>49.Undertake the physical and chemical analysis of the different mineral ores used in the section<br>50.Refinement of production of cups, plates and saucers<br>51.Undertake R&D in Bentonite and Allied requiring chemicals & Reagents<br>52.Undertake R&D in Artificial Ceramic Corals in fish breeding<br>53.Undertake R&D in Gemstone cutting technology this requires equipment &Consumables<br>54.Continue with R&D in dustless Chalk making from Gypsum ore<br>55.Undertake R&D in Glass recycling Technology<br>56.Continue with R&D in Water filtration<br>57.Continue with R&D in concrete tiles and Pavers<br>58.Undertake R&D in Production of mineral oxides<br>59.Undertake manufacturing of adhesives<br><br>Fruits and Vegetables department shall develop seven new products<br>60.Development of chicken feeds out of fruit waste<br>61.Development of jackfruit jam<br>62.Development of pomegranate juice<br>63.Development of sugar cane | | |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | jam and syrup<br>64.Development of a healthy green tea drink<br>65.Development of a healthy cocktail (pumpkin, lemon & passion)<br>66.Development of pumpkin powder<br><br>Bamboo<br>67.Development of Biochar fertilizer now on market trail especially National Forestry Authority and Tea Growers. The developed bamboo fertilizer products shall be analyzed monthly in different laboratories for product refinement<br>68.Two Products (Bamboo tooth Picks and Bamboo Mats) to be developed up to commercial stage<br>69.Toothpick and mat production, packaging and market testing, process and product refinement shall be undertaken. Bamboo, assorted processing chemicals and materials, packaging material to be procured<br>70.There shall be installation of Bamboo processing equipment, test running and commissioning of the Kabale Bamboo Processing Unit<br>71.There is a requirement to monitor & evaluate the Kabale Bamboo Process Department<br><br>ICT<br>72.UIRI shall undertake development of Mobile application platforms and testing mobile phones services for instance equip of staff with mobile apps development skills and providing SMS Messaging Development or equiping individuals with SMS software development skills<br><br>Button Mushroom<br>73.To further the research on Button Mushroom there is need to procurement of the following consumables, Millet grains, Urea, Muriate of potash (MOP), Supper phosphate, Insecticide (Dimilin ), Calcium carbonate, Wheat straw, Rice straw, Spawn | | |

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| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | bags, Wheat bran, Calcium ammonium nitrate (CAN), Gypsum, Black polythene bags, Big saucepans (stainless steel), Bench wipers, Cloths wipers, Parafilm''M'' Roll, Bunsen burner + Small gas cylinder 74.Wheat grains, molasses, Plastic containers for sterilization of substrate in the bunkers, Tapline 30x30 m long, Bags of rice grains for spawn production<br>Water spraying pipe with a pump, Water pumper from the drainage for recycling water at the composting yard | | |
| *Performance Indicators:* | | | |
| No. of value added products developed for industralisation to reduce post harvest losses. | 40 | 45 | |
| No. of research projects initiated | 60 | 65 | |
| No. of product analyses undertaken for quality checks | 55 | 581 | |
| *Output Cost:* | UShs Bn: 1.863 | UShs Bn: 1.609 | % Budget Spent: 86.4% |
| **Output: 065103** | **Industrial and technological Incubation** | | |
| *Description of Performance:* | 1.Expansion of Direct Access Distribution Strategy for Newcastle Vaccine. Following the successful completion of the novel pilot distribution mechanism in Eastern Uganda, The vaccine is to be launched nationwide. It will involve initially targeting distribution in 50 districts in the Northwest and Eastern parts of the country. In 2015-2016 the vaccine department intends to implement the lessons learnt in the pilot distribution area in eastern Uganda to launch KUKUSTAR, the vaccine against Newcastle disease, nationwide to be accessible to all poultry farmers.<br>2. There are currently 13 interested in Materials and Mineral Engineering Business incubation who shall be accessed aimed to create 30 jobs<br>3.Establishing one dairy incubation centre in Ntungamo<br>4.Monitoring and evaluation of virtual incubatees<br>5.Consumables for bamboo | The Business Incubation Program was set up to provide Business Incubation services for entrepreneurs who have not yet acquired enough capital to set up their own processing units. Under the program there is research training and technology development, adaptation and transfer geared towards conducting applied industrial research and addressing the needs of industry in Uganda specifically the micro, small and medium scale enterprises (MSMEs) with the aim of generating appropriate processing technologies. Business Incubation also offers training opportunities to students from higher institutions of learning within the country.<br>•Practical training programs in processing and production of products ,quality control and quality assurance is availed<br>•Technological problem solving :-e.g. quality up-gradation, value addition, new product and process development, product | A number of incubatee progress slowed down due to the 1.64bn shortfall |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | plant to commercialize toothpick and mats production lines in Kabale and at UIRI<br>6.Support towards sustainability & improvement of virtual incubatees' production capacity<br>7. Take on four new incubatees under Production Systems i.e USSIA, IEN, Tropical Connections, IKN Holdings<br>8.2.Trained incubateesApproval of requisitions for training materials<br>9.3.New commercialised productsProcurement of training materials<br>10.4.Increased production capacity in the juice pilot plant<br>11.5.New job opportunitiesCommercialisation of new products for incubatees<br>12.Initiation and approval of a requisition for a batch pasteuriser<br>13.Procurement of a batch pasteuriser<br>14.<br>15.Installation of the batch pasteuriser<br>16.Imroved product qualityRefinement of existing products for incubatees i.e pineapple juice,pineapple jam,chillie sauce,mango cordial,mango juice,mango & orange cocktail,tropical cocktail,passion,orange juice<br>17.Provide technical support for refinement of existing incubatee products<br>18.undertake incubateemonitoring and evaluation of incubatees(both in-house and virtual) | improvement<br>•Advice on choice of processing equipment and machinery, plant layout and process design.<br>•Establishment of quality assurance systems; e.g. GMP, GHP, HACCP, have been established to support the incubation and research programs<br>•Guiding clients in writing techno-economic feasibility report and business plans for processing entrepreneurial projects<br>•Processing new products during trial phase for private companies. | |
| *Performance Indicators:* | | | |
| No. of technologies deployed with incubatees | 25 | 25 | |
| No. of SME's incubates taken on | 50 | 38 | |
| *Output Cost:* | UShs Bn: 1.702 | UShs Bn: 1.604 | % Budget Spent: 94.2% |
| **Output: 065104** | **Model Value Addition Centre Establishment** | | |
| *Description of Performance:* | Establishment of Model Value Addition Centers has proved to impact on poverty reduction. The Established Model Value Addition Centers stimulate increased farm production. The farmers' area assured of ready | During Q4 and FY 15/16 all UIRI facilities were well maintained with routine and preventative civil works done as per schedule. | N/A |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | market where they can generate some income. The centers assist on reduction of post-harvest losses as what is produced is processed. The Model Value addition centers are a skills and training hub for capacity building in farm production, post-harvest handling, processing and creation of employment and hence poverty reduction<br><br>The following Model Value Addition Establishments are at different stages as detailed here below<br><br>1.Establish a functional Fruit juice and water processing facility in Kawempe by modification of an existing processing facility<br>2.Development of new products for the centres and training of production staff<br>3.Establish a Model industry to manufacture the polylactic acid and make bioplastics; and cosmetics centre 1st, 2nd, 3rd and 4th Establish infrastructure for pilot plants and recruit personnel to manage the centres<br>4.Maziba Winery Project, Kabale<br>Establishment of a complete functional processing winery plant whose construction work included a sub structure, walling and roofing, sanitary facilities, internal and external finishes, external works have been completed and handed over. Defects liability period supervision is underway.<br>5.Establishment of a Model Diary Farm in Ntungamo<br>The establishment of a model farm entails constructing a Dairy shade, Feeding shade, Chaff Cutter shade, Milk collection area.<br>Site has been handed over to the Contractor for commencement of work.<br>6.Extra works at Essential Oils Pilot Project Luweero<br>Construction of allowed variation for additional scope to include office premises and wet | | |

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| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | areas is underway at 90% of works complete.<br>7.Construction of a nursery shed at Essential oils Luweero<br>Construction of a nursery shed at Luweero Essential Oils is underway. Civil works Construction were completed. Welding works are pending<br>8.Proposed Fruit juice processing plant in Itojjo<br>A functional fruit juice processing plant whose works include a substructure, walling and roofing, internal and external finishes is underway. Construction is ongoing and the substructure is complete<br>9.Proposed Cheese processing plant at Rubale Ntungamo District<br>Works include to design for construction of the Cheese Processing Facility is underway. Site reconnaissance, to assess the nature of land, was done by the UIRI technical team on 17th Sep 2014. Bills of Quantities have been prepared.<br>10.Proposed Soap processing plant in Kabale Industrial Area for Yildi enterprisesis underway. Works to include Design for construction of the facility is underway. Site reconnaissance, to assess the nature of land, was done by the UIRI technical team on 17th Sep 2014. Preliminary estimates have been prepared.<br>11.Proposed rehabilitation of Esia mixed farm, Adjumani<br>Rehabilitation of the facility and activity scope to be discussed with UIRI Management<br>12.Tile manufacturing facility in Wakiso<br>Designs and Bills of Quantities have been prepared for establishment of a manufacturing facility for Tiles in Wakiso<br>13.Proposed Peanut Processing Plant in Soroti District<br>The design is complete and preliminary estimates for a complete functional Peanut Paste Processing Plant in Soroti District have been prepared. A report has been submitted for | | |

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| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | approval.<br>14.Development of a Fabrication Lab for small scale manufacturing of circuit boards and casings for complete prototypes. A Project proposal is currently being developed. A start-up meeting was convened inviting interested stakeholders for the project.<br>15.Internal Painting of selected Buildings at UIRI<br>Design and BOQ's and implementation supervision of Internal painting of the plants are meant to improve the sanitary conditions of the facilities to enable them attain UNBS inspection standards. External painting is to improve the aesthetics and general outlook of the UIRI campus. Painting of toilets at the conference hall is complete. Painting in ceramics is on going<br>16.Proposed Chemistry Laboratory RefurbishmentModel Chemistry<br>A Model Chemistry laboratory to facilitate the research activities currently being undertaken is ongoing. Contractor was procured. Construction work scheduled to begin in Q3.<br>17.Proposed Renovation of TDC Engineering workshop floor<br>A hard wearing suitable floor surface for activities being carried out on the workshop is required for reinforcement of workshop floor surface with terrazzo.<br>Renovation works in the workshop floors commenced and are underway. | | |
| *Performance Indicators:* | | | |
| No. of products up-scaled and commercialized by the centres | 35 | 37 | |
| No. of model value addition centres at 75% completition | 1 | 5 | |
| No. of local raw materials developed and populated in the scientific databases | 45 | 46 | |
| *Output Cost:* | UShs Bn: 0.619 | UShs Bn: 0.409 | % Budget Spent: 66.0% |
| **Output: 065105** | **Facility Repair and Maintenance** | | |

# Vote: 110 Uganda Industrial Research Institute

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| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| *Description of Performance:* | 1.Repair and maintenance of machinery and equipment for a well maintained pilot plant<br>2.Procurement and upgrading of the Existing Wastewater Treatment Plant with Advanced Immobilized Cell Reactor (AICR) Smart Treatment Plant (STP)<br>3.Establishment of a model wastewater treatment plant for training.<br>4.Cleaning materials & protective wear<br>5.Fuel For the Boiler and Standby Generator<br>6.Repair of Microwave Digestor(Multiwave 3000)<br>7. Repair the laboratory Refrigerator(EkoFrigoLab 1500) and Freeze Dryer (Telstar LyoAlfa 6)<br>8.Undertake routine preventive maintenance for HPLC (2), AAS, CHN, and Uv/visible Spectrometer<br>9.Undertake calibration of Analytical balance, 2 ovens, 2 muffle furnance, water bath & pH meter<br>10.Repair of Food Laboratory fridges by replacing the funs and utilise the fridge for chilling/freezing samples<br>11.Repair of the centrifuge to separate sample components using the gabber centrifuge<br>12.Procurement of testing equipment and kits for wastewater treatment plant. To ensure efficient and effective performance of the plant.<br>13.Construction and installation of new washrooms/toilet for the pilot plantTo improve on the hygiene and congestion during time of training<br>14.Drilling and installation of the underground water.To cut down the water bills by 60% from NWSC and the money is used for other development.<br>15.General servicing and repairs of Pilot plant<br>16.3rd phase water overhaul (internal piping system)<br>17.To replace the corroded old pipe and improve on the pipe layout. | During Q4 and FY 15/16 all UIRI facilities were well maintained with routine and preventative repairs of machinery, equipment and civil works done as per schedule.<br>Servicing of equipment's done on time | N/A |

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| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | 18.Maintenance tools & equipmentTo improve on work efficiency and service delivery.<br>19.Maintenance worksTo maintain better performance of the utility<br>20.Professional capacity development trainingTo improve on skills and knowledge for better performance.<br>21.UIRI facilities shall require fumigation services,<br>22.Cleaning Materials to include fuel for mauler, toilet paper, soap(liters), detergents, toilet brushes, brooms, contracting rubbish disposal, towels, tarpaulins<br>23.First Aid Boxes for the four pilot plants<br>24.Microbiology and Biotechnology Equipment calibration<br>25.Equipment service and preventative maintenance<br>26.Chemistry civil worksRepairs & remodeling<br>27.General plant clean up and maintenance of the Materials and Mineral Engineering Division<br>28.Functional machinery and equipment<br>29.Repair and maintenance of machinery<br>30.Repair of Kilns, Extruder and Ball mills of the Materials and Minerals Engineering Division<br>31.Well maintained pilot plant and improvement of civil works<br>32.Renovation of PCB Facility into a Fabrication Laboratory Kampala and equipment procurement. This shall require renovation of PCB lab Consultancy and procurement of equipment<br>33.There shall be continued maintenance (Repair, replacement and servicing) of electrical and electronic appliances and Serviced equipment and appliances by Instrumentation Division<br>34.Repair and creation of extra data ports in the BDC requires purchase of materials necessary and gear | | |

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| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | 35.Hire of external company to undertake maintenance of over 30 printers<br>36.Hire of external company to undertake maintenance of over 150 computer<br>37.Replace ICT consumables like printers toners, computer accessories, fax ribbon, computer mice, keyboards, UPS batteries whenever applicable | | |
| *Output Cost:* | UShs Bn: 0.600 | UShs Bn: 0.550 | % Budget Spent: 91.5% |
| **Output: 065106** | **Industrial Skills Development and Capacity Building** | | |
| *Description of Performance:* | 1.Provide skilled & practical internship training to students<br>2.Train skilled SMEs<br>3.Train Small cottage industries for fruits and vegetables processing created<br>4.Train SMEs in reduction of post-harvest losses<br>5.Hands on training for 6 people in bamboo processing skills, bamboo, processing chemicals, packaging material<br>6.Three Internships to be offered in Molecular Biology& Biotechnology and Microbial analysis<br>7.Train 200 in cosmetics formulation, biotechnology and microbial analysis in Culture media, chemicals and reagents<br>8.Training of production staff<br>9.Train skilled & practical internship students in food processing and quality management<br>10.Train skilled SMEs<br>11.Train different groups that are establishing small cottage industries in reduction of post-harvest loss handling<br>12.Certifications to be done in Networking, Programming, hardware maintenance for Internal staff capacity strengthening<br>13.Lira Peanut Research Processing Center shall train 150 farmers in Good Agricultural practices and Good post-harvest practices. This requires sensitization meetings and training materials<br>UIRI shall provide Instrumentation skills development<br>14. Advanced Embedded | UIRI has become the preferred destination for Student Industrial Training and Capacity Building. The following are achievements under this activity.<br>1.The Food Laboratory conducted 102 training sessions conducted in key priority sectors:<br>a.Ready-to-drink juice<br>b.Fruit jam<br>c.Wine<br>d.Peanut butter<br>e.Snacks<br>f.Confectioneries<br>g.Flours<br>h.Sorghum porridge<br>This churns out better skilled persons for improved community enterprise development<br>2.28 students from the Uganda Allied Institute of Health and Management – Mulago trained in microbiological skills<br>3.20 people acquired Hands-on skills training in cosmetics, soap, detergents & toiletry product formulation<br>4.Trained 5 new staff in ISO 17025 and Good Laboratory Practices<br>5.Trained 16 students of Food science and technology , chemistry from kyambogo , Bugema, Makerere, Ndejje university in Good laboratory practice<br>6.Trained 30 entrepreneurs from various groups of prospective SMEs and individuals on hands on training in Fruits and Vegetables Processing Technology.<br>7.Skills transfer to SMEs and | N/A |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | Systems and Advanced applied electronics<br>15.Hardware Description Language, Applied Instrumentation and Control Engineering<br>16.Computer Applications and databases for embedded systems, Double sided PCB design and processing and surface mount technologies<br>17.Real Time Operating Systems (RTOS) and Project and System Engineering Management<br>18.Provide training to 5 people in special skills relevant their Materials and Minerals Engineering skills gaps paradox Chemistry laboratory<br>19.Train 100 students in Good Laboratory Practice (GLP) and chemical analysis. Makerere University, Kyambogo University, Mulago Paramedics, Uganda Petroleum Institute Kigumba (UPIK)<br>ICT<br>20.Provide professional workshops & conduct seminars regarding the legal, Taxation & marketing aspects of a business, understanding national policy on industry and trade in the East African Community<br>21.Provide enrolled incubates training on how to start, manage a business and incorporate ICT for business efficiency ( both on site and outreach programs)<br>22.Provide training in enhanced records keeping & management, use of ICT tools & corporate image, Business Skills & Management Training, Business development coaching with emphasis on records management, Corporate image improvement and the use of ICT tools for efficiency and profitability<br>23.A minimum of 2 and Maximum of 4 linkages established coordination of round table meeting with financial institutions, initialization of collaboration with international and local business development centers<br>24.Participate in BDC strategic | schools in Handmade Paper Production being part of Agricultural Innovations to addressing rural challenges; Linking research to inclusive development for food security.<br>UIRI was awarded a Certificate for Skills transfer in managing and facilitation of SMEs involved in agribusiness rural innovations<br>8.45 Youth were trainedin production of charcoal briquettes from agricultural fiber waste, aimed at empowering Youth and Women in Kamengo; Mpingi district where 30 Youth and 25 Women trained<br>9.Dr. Louise Sserunjogi on behalf of RECO Industries Ltd was trained in production of High-Nutrient Cookies using extruded Corn-Soya Blend (CSB) as one of the major ingredients<br>10.Technical support was provided to University Students undertaking their final year research as well as those on undertaking industrial training. This strengthens relations with institutions from which the students are studying and Improves quality of student research<br>11.97 students from different universities and other higher institutions of learning undertook industrial training in various areas like instrumentation, energy systems, microbiology, chemistry, food technology attaining hands on experience<br>12.16 people from Uganda Small Scale Industries Association (USSIA) were trained in Bread, buns, donuts, mandazi, cookies, queen & ceremonial cakes<br>13.2 tertiary students undertaking researchwere assisted with analytical services<br><br>Staff training<br>Staff capacity has been improved mainly through specialized professional | |

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | exchange programswith other institutions for capacity building<br>25.Develop Customized Business Development Courses and Consultations, in Course designing & development of course outlines, Content development, Content reviews, compilation, publishing of course manuals and integration of multimedia<br>26.At least two primary market surveys carried outAnalysis of incubates business systems, conceptualization of both manual and possible automated systems, design, testing and deployment of developed systems<br>27.UIRI shall under take analysis of incubates business systems, conceptualization of both manual and possible automated systems, design, testing and deployment of developed systems<br>28.Commercialization of the video conferencing facility. Video conferencing subscription fees to be established | trainings as well as participation in national, regional and international conferences, workshops and other related events. They include:<br>1.International Conference on predictive modeling in food that was held from 8-12 September 2015 in Rio de Janeiro, Brazil. The conference was attended by Ms. Joanita Orishaba<br>2.1st African Agribusiness Incubation Conference and Expo held from 28th – 30th September, 2015 at the Kenyatta International Convention Centre (KICC) in Nairobi, Kenya. The event was attended by Ms. Angela Nyonyintono.<br>3.Training on Building Food Security that took place from 19-23 October 2015 at the Nanyang Technological University, Singapore. The training was attended by Ms. Joanita Orishaba<br>4.Ivan Kalega undertook training in Material Science in June in South Africa<br>5.Trained 53 students from African Institute of Strategic Animal Resources Institute (AFRISA) MUKin processing soy milk, yoghurt, ice cream, cottage cheese, pasteurizedbetween April-May 2016.<br>6.Trained 36 Students from Tertiary Institutions (MUK28, KYU 6, Bugema University 3) in processing Soy milk, yoghurt, ice cream, pasteurized milk Butter and ghee, soy yoghurt, ice Bars , sherbets between June –August 2016<br>7.2 SME's were trained in Yoghurt Processing between 27th - 24th June 2016<br>8.Cheese and Yoghurt Processing Seminar Organized By Chris Hansen / Promaco Ltd Two staff attendant the above seminar organized by Chris Hansen from Denmark and Promaco in Hotel African on the 8th December, 2015. The seminar attracted participants from small and medium scale dairy processors, the workshop disseminated latest cheese and | |

# Vote: 110 Uganda Industrial Research Institute

## QUARTER 4: Highlights of Vote Performance

| *Vote, Vote Function Key Output* | **Approved Budget and Planned outputs** | **Cumulative Expenditure and Performance** | **Status and Reasons for any Variation from Plans** |
|---|---|---|---|
| | | yoghurt processing technologies, including high quality dairy ingredient. Chris Hansen is one of the leading manufactures dairy starter cultures in the world. | |
| *Performance Indicators:* | | | |
| No. of apprenticeships taken on | 80 | 82 | |
| No. of SMEs trained in industrial development and value addition processing | 1,000 | 1670 | |
| *Output Cost:* | UShs Bn: 0.150 | UShs Bn: 0.060 | % Budget Spent: 40.0% |
| ***Vote Function Cost*** | ***UShs Bn: 14.340*** | ***UShs Bn: 13.143*** | ***% Budget Spent: 91.6%*** |
| **Cost of Vote Services:** | *UShs Bn:* **14.340** | *UShs Bn:* **13.143** | *% Budget Spent:* **91.6%** |

** Excluding Taxes and Arrears*

Research and Development
UIRI provides product and industrial process development services through testing and microbiological and chemical quality assurance; provision of analytical services, since microbiological quality is a critical determinant of competitiveness of manufactured products. As a modern research centre we facilitate utilization of biological and biochemical systems for transformation of natural resources for economic benefits.
1.UIRI continues to provide analytical services in chemical composition and microbial tests
2.The Chemistry Laboratory attained certification and recognition by Uganda National Bureau of Standards, UNBS
3.Put up all the required laboratory documentations for implementation of ISO 17025 (Accreditation)
4.AgriLASA membership Subscription for this year 2015 and 2016 was paid
5.The Chemistry Laboratory participated in analysis of the PTS samples submitted as required by ISO 17025 standard for testing Laboratory
6.The Food Laboratory provided Technical and Advisory Services to a multitude of entrepreneurs involved in processing and handling of food. Services cover the entire value chain from ideation through to commercialization and on improved products. This enables increased survival of businesses and increases the number of food products that comply with National Standards.
7.The Microbiology Laboratory participated in the NQCSSES Round 001/16 Proficiency Test which is coordinated by the Botswana Bureau of Standards
8.Innovative Product Development in a range of new products:
a.Non-dairy frozen dessert (Popsicle/Frozen Juice bar)
b.Tamarind Juice
c.Ready-to-use condiments – marinades, dressings, sauces
d.Sorghum wine
e.Canned maize-bean mix (empengyere)
f.Nutraceuticals - Hibiscus juice, Hibiscus Powder, Chia seeds, Aloe Vera Juice, Mushroom powder and mushroom enriched flour (Prototypes of the mentioned products)
9.Standardized processes for manufacture of the mentioned products
10.Handmade paper production from Banana, Pineapple fiber, Cotton and waste paper for production of Biodegradable products.
11.Charcoal briquettes from local materialsEmpowerment of Youth in Rukiga; Kabale.
12. Participated in Institutional Collaborative Initiatives and undertook a number of initiatives in collaboration with other players:
i.Participated in a project dubbed “Promotion of Traditional Grains as the “Super foods” of East Africa. This was in collaboration with African Center for Economic Transformation (ACET), Pardee Rand Graduate School,

# Vote: 110 Uganda Industrial Research Institute

## QUARTER 4: Highlights of Vote Performance

U.S Global Development Lab, Africa Innovations Institute, Resilient Africa Network, Makerere University and Saladin Media.
ii.Jointly developed a proposal "Extraction of Proteins and Starch from Underutilized Indigenous Legumes for Application in Food and Food Packaging Systems" with Fraunhofer Institute for Process Engineering and Packaging ( Fraunhofer IVV), Germany for funding by the German Ministry for Education and Research (BMBF).
iii.Institute popularized among collaborators. Co-operate ties established for future partnerships and collaborations
iv.Broadened horizons through contact with world-renown RTOs
Under Instrumentation
13.Venturewell Sustainable Grant (US$33,000) with Columbia University, Department of Biomedical Engineering, Fu Foundation School of Engineering and Applied Science ( 02/2015)
14.Oral Presentation at the World Congress on Biomedical Engineering and Medical Physics 2015, Toronto, Canada – ' Appropriate Medical Devices for Low Resource Settings: Electronically Controlled Gravity Feed Intravenous Infusion Set' (06/2016)
15.Finalists, Saving Lives at Birth: Grand Challenge for Development, invited for Development Exchange in Washington, DC ( Top 6% out of 750 applicants) for the MUTIMA: Low cost diagnostic tool for Pneumonia (07/2015)
16.Poster presentation at World Food System Conference 2015, Ascona, Switzerland- Smart Grain Silo (06/2015)
17.Invitation to join Global Pneumonia Innovations Team (07/2015)
18.Oral Presentation and publication in the Digital Xplore Online Journal at the 2015 IEEE AFRICON Conference in Addis Ababa, Ethiopia- Low Cost Electronically Controlled Gravity Feed Infusion Set (10/2015)
19.1st Place Innovation Award (US$50,000) at the World Summit on Patient Safety, Science and Technology , Dana Point, California, USA (01/ 2016)- ECGF Infusion Set Project
20.Oral Presentation at the 2015 Canadian Medical and Biomedical Engineering Conference, Calgary, Alberta – ' Medical Device Electronics Development in Low Resource Settings: A Ugandan Perspective' (05/2016)

Essential Oil Pilot Project
21.At the Essential Oil Pilot Plant 300 seedlings of Rose geranium were transplanted. 3,957 seedlings of Lemon balm which were still surviving in the nursery out of the trays propagated in January 2016.
22.The transplanted seedlings were used to backfill one plot of Rose geranium near the nursery and three plots of Lemon balm near the water tank.
23.More trays of Rose geranium and Lemon balm during have been propagated - Season B(Apr - Jul) of 2016 in order to achieve the required 6000 plants of Rose geranium &12000 plants of Lemon balm for sufficiently expanding mother block at UIRI's Essential Oil Pilot Station.
24.In May the Project Team has finalized plans to introduce some local aromatic plants like Lemon grass and Rosemary whose oil extract is already on demand in the domestic market.
25.2 pilot plots of Lemon grass were established at the Essential Oil Pilot Station. One plot of Lemon grass has a plant population of 532 and the second plot has 649.
26.1400 cuttings (7 nursery trays) of Rose geranium and 7 trays of Rosemary (4 trays of Rosemary exotic and 3 trays of Rosemary local) were propagated and will be ready for transplanting in August 2016 (Season C). Rosemary was propagated earlier in the month of May 2016 and it has already started developing roots. On the other hand, Rose geranium was propagated in the last week of May 2016.
27.Liquid manure was prepared and applied it on all existing plants in the pilot plots to boast their vegetative growth in current rains.
28.Raised 780 nursery seedlings of Rose geranium out of the 7 trays propagated in May 2016, at a success rate of 55.71%.
29.3 more trays of Rose geranium (600 cuttings) were propagated which are now 4 weeks old to avail us with more seedlings for expanding the mother garden.
30.The project team has also managed to raise 612 seedlings of Rosemary-local out of the 3.5 trays propagated

## QUARTER 4: Highlights of Vote Performance

in May 2016 and 366 seedlings of Rosemary-exotic out of the 5 trays propagated, a success rate of 83.8% for Rosemary-local and 36.6% for Rosemary-exotic.
1)Hardening the seedlings in nursery mid-July 2016 so that they are ready for transplanting at on-set of rains in August 2016 (Season C).
2)Lemon grass and Rosemary have been introduced at the Field Station rains since those oils are being sought after in the local market

Minerals and Materials Engineering Division
1)Designed and customized Model and Mold making for fragrance candle. The activities include Designing, Lathe machine works, Model curving and finishing, Mold assembling
2)Produced ceramic buttons and beads. The activities include: Raw material preparation, Formulation, Pressing and casting, Firing and Glazing,
3)Potter's Wheel throwingOutside Flower Pots involved, Preparing of the clay material, throwing of the bodies, finishing and firing
4)Produced and installed Artificial Ceramic Coral reefs to boost fish breeding in water bodies. Completed prototypes that were made to better dimensions
5)Compiled and submitted the final Project Proposal of the Gemstone cutting as a possible project to be implemented in Karamoja region, whose Pilot studies were successfully completed, under Stone Cutting Technology
6)Production of School chalk.Dustless chalk. This included raw material preparation, formulation, Production
7)Under mineral processing, Clay samples from Kalangala Women group were prepared, milled and screened to attain the right particle sizes
8)Raw Material testing, Soil and Rock samples from Moriemu in Abim District, Lupa in Moroto District, Kirembe in Kasese District. This included material sorting, milling, characterization, gold testing
9)Ceramic Water filters for domestic drinking water filters were produced. This involved Raw material preparation, Formulation, Pressing ceramic filter containers, Firing,Testing the filter for performance

Industrial and Technological Incubation
The Business Incubation Program was set up to provide Business Incubation services for entrepreneurs who have not yet acquired enough capital to set up their own processing units.
Under the program there is research training and technology development, adaptation and transfer geared towards conducting applied industrial research and addressing the needs of industry in Uganda specifically the micro, small and medium scale enterprises (MSMEs) with the aim of generating appropriate processing technologies. Business Incubation also offers training opportunities to students from higher institutions of learning within the country.
•Practical training programs in processing and production of products ,quality control and quality assurance is availed
•Technological problem solving :-e.g. quality up-gradation, value addition, new product and process development, product improvement
•Advice on choice of processing equipment and machinery, plant layout and process design.
•Establishment of quality assurance systems; e.g. GMP, GHP, HACCP, have been established to support the incubation and research programs
•Guiding clients in writing techno-economic feasibility report and business plans for processing entrepreneurial projects
•Processing new products during trial phase for private companies.

During Q4 the following achievements were made under the Business and Technological Incubation Program
1.Quality evaluation, standardization and commercialization of Slice Mango Juice. Products were analyzed for microbial and chemical composition. (There is continuous improvement of the quality and commercialization of Slice Mango Juice)
2.Upscaling production of Zena Ready to Drink Juices.Production has been up scaled from 100liters to 300 liters

## QUARTER 4: Highlights of Vote Performance

per day
3.Two incubatees were take on in the Fruits and Vegetable incubation program
4.Expansion of the Fresh Milk Cold Room - The fresh milk cold room was expanded to accommodate the increased production volume of pasteurized milk and yoghurt. A new building was constructed attached to the old cold room and equipped with cold room facilities by Batidan Consulting Engineers. It has been commissioned and is now being used for cold storage of the above products by M/s Premier Dairies ltd

5.Karubuga Dairy Farm was supplied with Dairy Processing Equipment by M/s Engineering Solution Ltd. The equipment was delivered to the project site. Installation, training and commissioning will commence in the next financial year.
6.Under Dairy Technology there are 7 incubatees
•Premier Dairies Ltd, processing a monthly average of 186,673 liters of Pasteurized milk and 12,300 ltrs of Yoghurt and employing 30 people.
•Z-plus Ltd producing a monthly average of 3,800 liters of Yoghurt and employing 6 people
•Grace K Magumba producing a monthly average of 2,400 liters of Yoghurt and employing 4 people
•Nutrition Food producing a monthly average of 900 liters of Yoghurt and employing 3 people
•Mabira Estates C&DG producing a monthly average of 900 liters of Yoghurt and employing 3 people
•Model Professional Consult producing a monthly average of 2,300 liters of Yoghurt and employing 4 people
•Kabeihura Farmers (Virtual ) producing a monthly average of 6,000 liters of Yoghurt and employing 6 people
i.The two incubation farms M/S Adeke Farm and M/S Millionaire Gals Farm have not yet been fully established as there is still infrastructure gaps to be put in place
7.The Vaccine Production Unit finalized formulation trials to improve vaccine yield by an additional 50%. As a result installed capacity at the facility has increased from 185million vaccinations to 245million vaccinations without a need for increase in manpower, equipment or man-hours.
8.Continued distribution of Newcastle Vaccine in the Ugandamainly eastern and central Uganda. Total Sales during Quarter 4 were 3,011,000 doses. Of which 887,500 can be accurately traced to smallholder farmers in a total of 9,543 households.
9.Under bakery technology there are
•VASH-KAN Investments Ltd formerly known as Unmatched Enterprises produced cookies, cakes i.e. ceremonial, queen and banana cakes
•Trade Masters (U) Ltd produced sweet and brown bread, sweet buns and a variety of cakes (queen, madeira, and lemon)

**Table V2.2: Implementing Actions to Improve Vote Performance**

| Planned Actions: | Actual Actions: | Reasons for Variation |
|---|---|---|
| Vote: 110 Uganda Industrial Research Institute | | |
| Vote Function: 06 51 Industrial Research | | |
| | **UIRI has made a deliberate procedure to embed standards in all products under formation and development. This has consequently resulted into ease of certification of MOST products developed at UIRI and in effect meeting the required quality standards to compete with regional products** | N/A |
| | **The business Incubation projects and Model Processing Facilities are still operating within the limited ceiling of MTED. Accelerated growth of operations can only be achieved if an Innovation and Industrialization fund is effected.** | A Proposal for establishment and implementation of an Industrial and Innovation Fund originated by UIRI was submitted and has still not been put in place. |
| Vote: 110 Uganda Industrial Research Institute | | |
| Vote Function: 06 51 Industrial Research | | |

# Vote: 110 Uganda Industrial Research Institute

## QUARTER 4: Highlights of Vote Performance

| Planned Actions: | Actual Actions: | Reasons for Variation |
|---|---|---|
| | **UIRI has set up an awareness campaign. By designating every Tuesday to visitors ranging from schools, to entrepreneurs, politicians, government officials to guided tours of the Institute to help them understand the mandate and activities undertaken by the institute and how the institute can quickly assist interested persons in adaptation and commercialization of the proved research results** | 1.Inadequate budget allocation under MTEF<br>2.Deficit between allocated and actual released budget funds<br>3.Expensive financing from financial institutions to undertake R&D projects<br>4.Low technical skills<br>5.Lack of funds to support commercialization of innovations, technologies and products (Industrialization and Innovation Fund)<br>6.Inadequate remuneration for retention of highly skilled scientists and engineers<br>7.Absence of critical technical skills<br>8.Weak inter-institutional cohesion and cooperation<br>9.Limited levels of entrepreneurial competences in our society<br>10.Decrepit infrastructure and limited connectivity<br>11.Governmental and societal ambivalence with regard to R&D |

## *V3: Details of Releases and Expenditure*

*This section provides a comprehensive summary of the outputs delivered by the Vote and further details of Vote expenditures by Vote Function and Expenditure Item.*

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

| *Billion Uganda Shillings* | Approved Budget | Released | Spent | *% GoU Budget Released* | *% GoU Budget Spent* | *% GoU Releases Spent* |
|---|---|---|---|---|---|---|
| **VF:0651 Industrial Research** | **14.24** | **13.23** | **13.14** | ***92.9%*** | ***92.3%*** | ***99.3%*** |
| *Class: Outputs Provided* | *11.45* | *10.46* | *10.44* | *91.3%* | *91.2%* | *99.9%* |
| 065101 Administation | 5.92 | 5.67 | **5.67** | *95.8%* | *95.8%* | *100.0%* |
| 065102 Research and Development | 1.86 | 1.61 | **1.61** | *86.4%* | *86.4%* | *100.0%* |
| 065103 Industrial Incubation | 1.70 | 1.61 | **1.60** | *94.9%* | *94.2%* | *99.3%* |
| 065104 Maintenance - Civil works | 0.62 | 0.41 | **0.41** | *66.0%* | *66.0%* | *100.0%* |
| 065105 Maintenance - Machinery and Equipment | 0.60 | 0.55 | **0.55** | *91.6%* | *91.5%* | *99.9%* |
| 065106 Student Industrial Training and Capacity Building | 0.15 | 0.06 | **0.06** | *40.0%* | *40.0%* | *100.0%* |
| 065107 Technology, Innovation, Transfer and Development | 0.54 | 0.54 | **0.54** | *100.0%* | *100.0%* | *100.0%* |
| 065108 Popularization of research and technologies | 0.06 | 0.00 | **0.00** | *0.0%* | *0.0%* | *N/A* |
| *Class: Capital Purchases* | *2.79* | *2.77* | *2.70* | *99.4%* | *96.7%* | *97.3%* |
| 065172 Government Buildings and Administrative Infrastructure | 0.98 | 0.96 | **0.96** | *98.2%* | *98.2%* | *100.0%* |
| 065176 Purchase of Office and ICT Equipment, including Software | 0.10 | 0.10 | **0.10** | *100.0%* | *99.9%* | *99.9%* |
| 065177 Purchase of Specialised Machinery & Equipment | 1.71 | 1.71 | **1.63** | *100.0%* | *95.7%* | *95.7%* |
| **Total For Vote** | **14.24** | **13.23** | **13.14** | ***92.9%*** | ***92.3%*** | ***99.3%*** |

* *Excluding Taxes and Arrears*

### Table V3.2: 2015/16 GoU Expenditure by Item

| *Billion Uganda Shillings* | Approved Budget | Releases | Expend-iture | % Budged Released | % Budget Spent | %Releases Spent |
|---|---|---|---|---|---|---|
| ***Output Class: Outputs Provided*** | ***11.45*** | ***10.46*** | ***10.44*** | ***91.3%*** | ***91.2%*** | *99.9%* |
| 211102 Contract Staff Salaries (Incl. Casuals, Temporary) | 4.38 | 4.38 | **4.38** | 100.0% | 100.0% | 100.0% |
| 211103 Allowances | 0.10 | 0.10 | **0.10** | 100.0% | 100.0% | 100.0% |
| 212101 Social Security Contributions | 0.53 | 0.49 | **0.49** | 92.1% | 92.0% | 100.0% |
| 213001 Medical expenses (To employees) | 0.20 | 0.20 | **0.20** | 100.0% | 100.0% | 100.0% |
| 213004 Gratuity Expenses | 0.91 | 0.91 | **0.91** | 100.0% | 100.0% | 100.0% |
| 221001 Advertising and Public Relations | 0.03 | 0.03 | **0.03** | 100.0% | 100.0% | 100.0% |

# Vote: 110 Uganda Industrial Research Institute

## QUARTER 4: Highlights of Vote Performance

| *Billion Uganda Shillings* | Approved Budget | Releases | Expend-iture | % Budged Released | % Budget Spent | %Releases Spent |
|---|---|---|---|---|---|---|
| 221003 Staff Training | 0.16 | 0.13 | **0.13** | 85.8% | 85.6% | 99.8% |
| 221004 Recruitment Expenses | 0.01 | 0.00 | **0.00** | 0.0% | 0.0% | N/A |
| 221007 Books, Periodicals & Newspapers | 0.01 | 0.00 | **0.00** | 26.4% | 26.2% | 99.2% |
| 221009 Welfare and Entertainment | 0.08 | 0.08 | **0.08** | 100.0% | 100.0% | 100.0% |
| 221011 Printing, Stationery, Photocopying and Binding | 0.07 | 0.01 | **0.01** | 19.5% | 19.5% | 100.0% |
| 221012 Small Office Equipment | 0.03 | 0.02 | **0.02** | 78.2% | 78.2% | 100.0% |
| 221017 Subscriptions | 0.01 | 0.01 | **0.01** | 100.0% | 99.4% | 99.4% |
| 222001 Telecommunications | 0.07 | 0.07 | **0.07** | 100.0% | 100.0% | 100.0% |
| 222002 Postage and Courier | 0.00 | 0.00 | **0.00** | 5.1% | 5.1% | 100.0% |
| 222003 Information and communications technology (ICT) | 0.04 | 0.04 | **0.04** | 100.0% | 100.0% | 100.0% |
| 223001 Property Expenses | 0.12 | 0.12 | **0.12** | 96.0% | 96.0% | 100.0% |
| 223002 Rates | 0.05 | 0.04 | **0.04** | 74.4% | 74.4% | 100.0% |
| 223004 Guard and Security services | 0.16 | 0.15 | **0.15** | 96.8% | 96.8% | 100.0% |
| 223005 Electricity | 0.54 | 0.45 | **0.45** | 83.1% | 83.1% | 100.0% |
| 223006 Water | 0.13 | 0.13 | **0.13** | 100.0% | 100.0% | 100.0% |
| 223007 Other Utilities- (fuel, gas, firewood, charcoal) | 0.15 | 0.03 | **0.03** | 18.4% | 18.4% | 99.7% |
| 224001 Medical and Agricultural supplies | 0.47 | 0.29 | **0.29** | 61.1% | 61.1% | 100.0% |
| 224004 Cleaning and Sanitation | 0.19 | 0.16 | **0.15** | 82.5% | 82.3% | 99.8% |
| 224005 Uniforms, Beddings and Protective Gear | 0.10 | 0.04 | **0.04** | 44.5% | 44.5% | 100.0% |
| 224006 Agricultural Supplies | 0.81 | 0.64 | **0.63** | 78.2% | 76.9% | 98.3% |
| 226001 Insurances | 0.04 | 0.02 | **0.02** | 45.7% | 45.4% | 99.3% |
| 227001 Travel inland | 0.03 | 0.03 | **0.03** | 100.0% | 100.0% | 100.0% |
| 227002 Travel abroad | 0.19 | 0.17 | **0.17** | 89.3% | 89.3% | 100.0% |
| 227003 Carriage, Haulage, Freight and transport hire | 0.01 | 0.01 | **0.01** | 100.0% | 100.0% | 100.0% |
| 227004 Fuel, Lubricants and Oils | 0.26 | 0.20 | **0.20** | 75.3% | 75.3% | 100.0% |
| 228001 Maintenance - Civil | 0.05 | 0.05 | **0.05** | 100.0% | 100.0% | 100.0% |
| 228002 Maintenance - Vehicles | 0.27 | 0.20 | **0.20** | 75.5% | 75.5% | 100.0% |
| 228003 Maintenance – Machinery, Equipment & Furniture | 1.25 | 1.25 | **1.25** | 100.0% | 100.0% | 100.0% |
| ***Output Class: Capital Purchases*** | ***2.79*** | ***2.77*** | ***2.70*** | ***99.4%*** | ***96.7%*** | *97.3%* |
| 312101 Non-Residential Buildings | 0.98 | 0.96 | **0.96** | 98.2% | 98.2% | 100.0% |
| 312202 Machinery and Equipment | 1.81 | 1.81 | **1.74** | 100.0% | 95.9% | 95.9% |
| **Grand Total:** | **14.24** | **13.23** | **13.14** | **92.9%** | **92.3%** | **99.3%** |
| **Total Excluding Taxes and Arrears:** | **14.24** | **13.23** | **13.14** | **92.9%** | **92.3%** | **99.3%** |

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

| *Billion Uganda Shillings* | Approved Budget | Released | Spent | *% GoU Budget Released* | *% GoU Budget Spent* | *% GoU Releases Spent* |
|---|---|---|---|---|---|---|
| **VF:0651 Industrial Research** | **14.24** | **13.23** | **13.14** | ***92.9%*** | ***92.3%*** | ***99.3%*** |
| *Recurrent Programmes* | | | | | | |
| 01 Headquarters | 5.92 | 5.67 | **5.67** | *95.8%* | *95.8%* | *100.0%* |
| *Development Projects* | | | | | | |
| 0430 Uganda Industrial Research Institute | 8.32 | 7.56 | **7.47** | *90.8%* | *89.8%* | *98.9%* |
| **Total For Vote** | **14.24** | **13.23** | **13.14** | ***92.9%*** | ***92.3%*** | ***99.3%*** |

* *Excluding Taxes and Arrears*

### Table V3.4: Donor Releases and Expenditure by Project and Programme*