

Vote: 110 Uganda Industrial Research Institute

Vote Summary

VI: Vote Overview

This section sets out the Vote Mission, Strategic Objectives, and provides a description of the vote's services

(i) Snapshot of Medium Term Budget Allocations

Table V1 below summarises the Medium Term Budget allocations for the Vote:

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

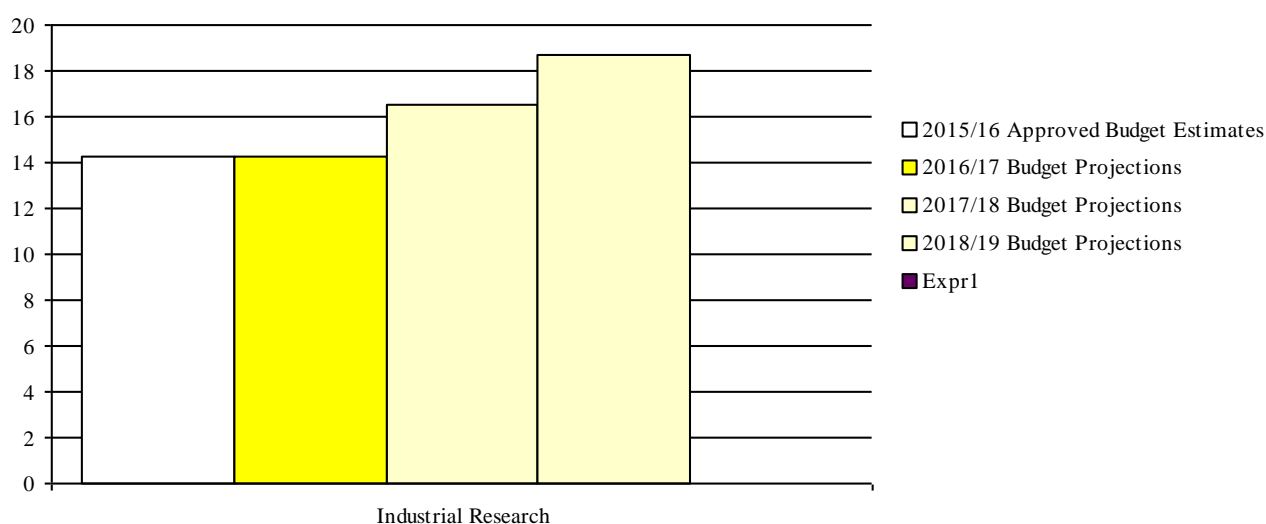
	2014/15 Outturn	2015/16		MTEF Budget Projections		
		Approved Budget	Spent by End Sept	2016/17	2017/18	2018/19
<i>(i) Excluding Arrears, Taxes</i>						
Recurrent						
Wage	0.000	3.720	0.870	3.720	3.906	4.101
Non Wage	5.587	2.197	0.458	2.197	2.615	3.086
Development						
GoU	8.817	8.323	1.822	8.323	9.987	11.485
Ext.Fin	0.000	0.000	0.000	0.000	0.000	0.000
GoU Total	13.905	14.240	3.150	14.240	16.508	18.672
Total GoU+Donor (MTEF)	13.905	14.240	3.150	14.240	16.508	18.672
<i>(ii) Arrears and Taxes</i>						
Arrears	0.000	0.000	0.000	0.000	N/A	N/A
Taxes**	0.500	0.000	0.000	0.000	N/A	N/A
Total Budget	14.405	14.240	3.150	14.240	N/A	N/A
<i>(iii) Non Tax Revenue</i>						
	0.000	0.100	0.000	0.100	0.100	0.000
Grand Total	14.405	14.340	3.150	14.340	N/A	N/A
Excluding Taxes, Arrears	13.905	14.340	3.150	14.340	16.608	18.672

* Donor expenditure data unavailable

** Non VAT taxes on capital expenditure

The chart below shows total funding allocations to the Vote by Vote Function over the medium term:

Chart V1.1: Medium Term Budget Projections by Vote Function (UShs Bn, Excluding Taxes, Arrears)



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(ii) Vote Mission Statement

The Vote's Mission Statement is:

To catalyze the social economic transformation of Uganda and the region, through enhanced technology use. To carry out applied research and develop or source appropriate technology in order to create a strong, effective and competitive industrial Sector for the rapid industrialisation of Uganda. Hence catalyse the socio-economic transformation of Uganda and the region through enhanced technology use.

(iii) Vote Outputs which Contribute to Priority Sector Outcomes

The table below sets out the vote functions and outputs delivered by the vote which the sector considers as contributing most to priority sector outcomes.

Table V1.2: Sector Outcomes, Vote Functions and Key Outputs

Sector Outcome 1:	Sector Outcome 2:	Sector Outcome 3:
<i>A Competitive and Export-oriented Industrial Sector</i>	<i>Improved Heritage Conservation and Increased Tourism Earnings</i>	<i>Improved Competitiveness and Market Access of Uganda's Goods and Services</i>
Vote Function: 06 51 Industrial Research		
<i>Outputs Contributing to Outcome 1:</i>	<i>Outputs Contributing to Outcome 2:</i>	<i>Outputs Contributing to Outcome 3:</i>
<i>Outputs Provided</i>	None	<i>Outputs Provided</i>
065101 Administration		065102 Research and Development
065102 Research and Development		
065103 Industrial Incubation		
065104 Maintenance - Civil works		
065105 Maintenance - Machinery and Equipment		
065106 Student Industrial Training and Capacity Building		

V2: Past Vote Performance and Medium Term Plans

This section describes past and future vote performance, in terms of key vote outputs and plans to address sector policy implementation issues.

(i) Past and Future Planned Vote Outputs

2014/15 Performance

Preliminary 2015/16 Performance

By the end of September FY 15/16

Administratively UIRI had:

1.8 New Employees were recruited

2.16 staff undertook training and skills development in various fields

3. Paid off current staff salaries and benefits of 262 employees

4. Insured Institute Assets Equipment, Vehicles, IT Servers and IT Equipment

5. Paid for some subscriptions

Under Research and Development

1.94 product analyses undertaken for quality checks

2. Initiated 24 research project

3.15 Value added products developed have been developed for industrialization

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Industrial and business incubation

1. UIRI has 22 business incubates engaged in various business activities aimed at commercialization of different research results
- 2.9 technologies were deployed with incubatees

Achieved 4 Value addition Centres at 75% completion

1. Arua Savoury Classic meat processing Plant - Construction is ongoing and works are at 90% complete.
2. Fruit juice processing plant in Itojjo - Construction works are at 90 % complete. Supply of water and electricity to site is awaiting approval.
3. Proposed Model Dairy Farm in Ntungamo - Most of the civil works to include a sub structure, walling, roofing, sanitary facilities, internal and external finishes, external works are done. Various changes at the request of the machinery supplier are being implemented in preparation for installation of machinery.
4. Proposed Chemistry Laboratory Refurbishment into a Model Chemistry - 90% of civil works are done. This is aimed at conforming to the requirements of ISO 17025 for laboratory accreditation

Facility Maintenance

1. All on-site and off-site facilities machinery, equipment and tools were maintained during the quarter

Industrial training and Skills Capacity building

1. Trained 610 SMEs trained in industrial development and value addition processing and business management
2. Took on 22 apprentices

Popularization of research and technological results

UIRI participated at the UMA Trade Show to publicize its research and technological results via trade. Publications have also been made to international scientific journals and newspaper supplements; attending conferences, workshops and trainings which provide platforms for information/ knowledge sharing

Government Buildings and Administrative

Infrastructure

All established UIRI facilities are now operational

Purchase of Specialised Machinery & Equipment

The institute undertook to procure planned machinery equipment and tools for Technology Development Center, Product Development, Production Systems and Finance and Administrative Directorates as budgeted

Table V2.1: Past and 2016/17 Key Vote Outputs*

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
Vote: 110 Uganda Industrial Research Institute			
<i>Vote Function: 0651 Industrial Research</i>			
Output: 065101	Administration and Support Services		
<i>Description of Outputs:</i>	- Recruit 45 New Employees	- Recruited 8 New Employees	- Recruit 27 New Employees
	- Undertake staff training and skills development	- 16 staff undertook training and skills development in various fields	- Undertake staff training and skills development
	- Pay off current staff salaries and benefits	- Paied off current staff salaries and benefits of 262 employees	- Pay off current staff salaries and benefits
	- Insure Institute Assets Equipment, Vehicles, IT Servers and IT Equipment	- Insured Institute Assets Equipment, Vehicles, IT	- Insure Institute Assets Equipment, Vehicles, IT Servers and IT Equipment

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<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	Subscriptions Online Membership subscription for 1.AOAC (Association of Analytical Chemists 2.American Public Health Association 3.Science Direct Journal. 4.Laboratory Proficiency Testing Schemes (PTS) 5.Annual Subscription for •PTS, •AgriLASA, •EAC •SADCMET •FAPAS (as a requirement for Accreditation of the laboratory)	Servers and IT Equipment Paid for some subscriptions	Subscriptions Online Membership subscription for 1.AOAC (Association of Analytical Chemists 2.American Public Health Association 3.Science Direct Journal. 4.Laboratory Proficiency Testing Schemes (PTS) 5.Annual Subscription for •PTS, •AgriLASA, •EAC •SADCMET •FAPAS (as a requirement for Accreditation of the laboratory)
	<i>Output Cost: US\$ Bn:</i> 6.018	<i>US\$ Bn:</i> 1.328	<i>US\$ Bn:</i> 6.018
Output: 065102	Research and Development		
<i>Description of Outputs:</i>	Research and development The different sections engaged in Research and Development shall undertake as follows Production Systems shall 1.Formulate and develop chicken feeds out of the bio waste of fruit waste 2.Formulate and develop Jackfruit jam 3.Formulate and develop Pomegranate juice 4.Formulate and develop Sugar cane syrup and jam 5.Formulate and develop healthy Green tea drinks 6.Formulate and develop healthy cocktail (pumpkin, lemon & passion) 7.Formulate and develop pumpkin powder Under the Food Laboratory 8.Food Laboratory remains committed to undertake food product development, and related research 9.Study the stability of curcuminoids and lignans in foods 10.Analysis of milk using lactoscan hence the need to procure consumable materials including alkali 11.Analysis of juices for TTA, Phhe need to procure	Analyses undertaken 69 samples have been analyzed for various microbial parameters such as: TPC, Total coliforms, E. coli, Yeast and molds, Staphylococcus aureus, & Salmonella typhimurium; and provide services like vaccine sterility tests, Antimicrobial activity of products and microbial surface swabs 25 samples analyzed & certificates were issued for routine analysis of External and Internal laboratory samples; of food, juice, water & waste water, drugs, minerals, soap, Detergents, cosmetics, natural products, plants and petroleum products for chemical composition 24 Research Projects initiated 1.Antimicrobial activity of banana flowers extract against bacteria. 2.Application of zeolites in removal of heavy metals in wastewater. 3.Antimicrobial and anti- oxidant studies of essential oils from exotic plants	Under Research and Product Development: The Institute acts as a central point for identifying new uses for existing raw materials, improvement and adaptation of materials to higher technology application and develops an integrated matrix for value addition

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<i>Vote, Vote Function Key Output</i>	2015/16 Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	consumable materials including indicator	4. Formulation of sensitizers from aloe vera	
	12. Testing products under development for temperature, moisture Q1, Q2, Q3 Moisture meter	5. A new vegetable sausage formulation was arrived at through several trials.	
	13. Carrying out milk platform tests he need to procure consumable materials including a base	6. Production of School Dustless chalk	
	14. 3 types of Breakfast cereals will be made hence the need to procure, production materials including raw materials and packaging	7. MUTIMA project – Saving lives at birth	
	15. 4 types of Instant porridges will be made he need to procure production materials including raw materials, packaging, emulsifiers, stabilisers and preservatives	8. Smart Drip Irrigation System	
	16. 2 types of nooddles from local food material will be developed he need to procure production materials including appropriate packaging	9. Development of jackfruit Ready to Drink and cocktails	
	17. 7 gas mixtures for MAP packaged fruits, vegetables, meats, bakery products, dairy products will be developed he need to procure raw materials and appropriate packaging	10. Charcoal briquettes	
	18. 5 levels of Production of pectin he need to procure production materials	11. Development of feta cheese from goat milk	
	19. Develop breakfast cereals, instant porridges, nooddles from local foods like cassava and sweet potato	12. A High performance liquid detergent formulation involving use of detergent enzymes developed by the incubate, Kess Biotech Inc.	
	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	13. Formulation of a sun screen lotion for Albinos who are at risk of getting skin cancer due to UV-radiation is in advanced stages of development	
	21. Producing pectin from fruit wastes, extraction of plant and animal materials that can be used as ingredients during product development.	14. The Peanut-Mycotoxin Testing Innovations Laboratory was approached	
	22. Enable physical preservation of fluid foods at laboratory level before packaging	15. A proposal titled “Promoting the Deployment of the Portable Electrochemical Biosensor Integrated with Mobile Phone Platform in Monitoring and Surveillance of Aflatoxin	
	23. Fast and efficient drying of food products during product	16. fabricated a Banana Juice Press and trails have been successful	
		17. The Engineering Department is undertaking replication of simple briquette machinery	
		18. Fabrication of charcoal briquette making machinery with Incinerators(02), mixer (01), crusher(01), press (02)	
		19. Fabrication of Boda ambulance cart for Mbarara University of Science and Technology Cutting, joining, finishing, mounting and assembling of part components	
		20. Fabrication of meat and fish sorting tables -06 fish tables, 06 meat tables	
		21. Fabrication of drainage grating, shearing, bending and spot welding the covers	

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<i>Vote, Vote Function Key Output</i>	2015/16 Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	development Microbiology shall develop 3 Products	22.Fabrication of juice press with a shearing, rolling and welding 23.Establishment of a test facility for bioethanol production 24.Construction of a bioethanol cooking stove prototype	
	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	Value addition Products 1.Dairy Products 2.Meat products 3.Cosmetics 4.Handmade paper	
	25.Research & development of an antibacterial soap 1st, 2nd, 3rd and 4th QuartersChemicals & reagents for cosmetics formulation	5.Sun screen lotion for Albinos 6.Formulation of sensitizers from aloe vera	
	26.Research & development of Spirulina1st, 2nd, 3rd and 4th QuartersLaboratory consumables Research projects applied shall include	7.A new vegetable sausage formulation was arrived at through several trials. 8.Production of School Dustless chalk 9.MUTIMA project – Saving lives at birth	
	27.Design & Dev't of production process of an antibacterial herbal remedy1st, 2nd, 3rd and 4th QuartersMaterials & Equipment	10.Smart Drip Irrigation System 11.Development of jackfruit Ready to Drink and cocktails 12.Charcoal briquettes 13.Development of feta cheese from goat milk	
	28.Field trial of Aflatoxin Biosensor in Arua 2nd QuarterMaterials, Equipment and subsistence allowances Research Projects shall be initiated shall include	14.Banana wine 15.Banana juice	
	29.Pro-Lactic acid production from cassava1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances		
	30.Bioplastics development 1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances		
	31.Biosurfactants for environmental bioremediation1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances		
	32.Biosensors and Bioengineering1st, 2nd, 3rd and 4th QuartersMaterials, Equipment and subsistence allowances		
	Chemistry laboratory 33.Routine Laboratory analysis, Research & Development 34.Procurement of Laboratory		

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	<p>standards chemicals, Reagents, Apparatus and other lab materials.</p> <p>35.Procurement for Soxtec system (Fat content), Fibertec system(fiber content) & Kjeltex system (protein)</p> <p>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</p> <p>The Chemistry Laboratory shall undertake five product formulations</p> <p>37.Formulation of shoe polish,</p> <p>38.car polish,</p> <p>39.sanitizers,</p> <p>40.match box, and</p> <p>41.Anti-microbial agents using local raw materials in Uganda</p> <p>The Chemistry Laboratory Research projects shall include.</p> <p>42.Antimicrobial activity of banana flowers extract against bacteria</p> <p>43.Application of zeolites in removal of heavy metals in wastewater.</p> <p>44.Isolation of curcuminoids from turmeric plant.</p> <p>45.Commercialization of flavored clay pot water</p> <p>The Materials and Minerals Engineering Division</p> <p>The Materials and Minerals Engineering Division looks to innovate the following new technologies</p> <p>46.Production of recycled Glass Products</p> <p>47.Production of concrete Tiles and Pavers</p> <p>48.Production of plastic Recycled Products</p> <p>49.Undertake the physical and chemical analysis of the different mineral ores used in the section</p> <p>50.Refinement of production of cups, plates and saucers</p> <p>51.Undertake R&D in Bentonite and Allied requiring chemicals</p>		

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	<p>& Reagents</p> <p>52.Undertake R&D in Artificial Ceramic Corals in fish breeding</p> <p>53.Undertake R&D in Gemstone cutting technology this requires equipment &Consumables</p> <p>54.Continue with R&D in dustless Chalk making from Gypsum ore</p> <p>55.Undertake R&D in Glass recycling Technology</p> <p>56.Continue with R&D in Water filtration</p> <p>57.Continue with R&D in concrete tiles and Pavers</p> <p>58.Undertake R&D in Production of mineral oxides</p> <p>59.Undertake manufacturing of adhesives</p> <p>Fruits and Vegetables department shall develop seven new products</p> <p>60.Development of chicken feeds out of fruit waste</p> <p>61.Development of jackfruit jam</p> <p>62.Development of pomegranate juice</p> <p>63.Development of sugar cane jam and syrup</p> <p>64.Development of a healthy green tea drink</p> <p>65.Development of a healthy cocktail (pumpkin, lemon & passion)</p> <p>66.Development of pumpkin powder</p> <p>Bamboo</p> <p>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</p> <p>68.Two Products (Bamboo tooth Picks and Bamboo Mats) to be developed up to commercial stage</p> <p>69.Toothpick and mat production, packaging and market testing, process and</p>		

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<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	<p>product refinement shall be undertaken. Bamboo, assorted processing chemicals and materials, packaging material to be procured</p> <p>70. There shall be installation of Bamboo processing equipment, test running and commissioning of the Kabale Bamboo Processing Unit</p> <p>71. There is a requirement to monitor & evaluate the Kabale Bamboo Process Department</p> <p>ICT</p> <p>72. URI 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 equipping individuals with SMS software development skills</p> <p>Button Mushroom</p> <p>73. To further the research on Button Mushroom there is need to procurement of the following consumables, Millet grains, Urea, Muriate of potash (MOP), Super phosphate, Insecticide (Dimilin), Calcium carbonate, Wheat straw, Rice straw, Spawn 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</p> <p>74. Wheat grains, molasses, Plastic containers for sterilization of substrate in the bunkers, Tapline 30x30 m long, Bags of rice grains for spawn production</p> <p>Water spraying pipe with a pump, Water pumper from the drainage for recycling water at the composting yard</p>		
<i>Performance Indicators:</i>			
No. of value added products developed for industrialisation to reduce	40	15	

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<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
post harvest losses.			
No. of value added products developed for industrialisation to reduce post harvest losses			45
No. of research projects initiated	60	24	15
No. of product analyses undertaken for quality checks	55	94	3032
<i>Output Cost: UShs Bn:</i>	<i>1.863</i>	<i>UShs Bn: 0.300</i>	<i>UShs Bn: 1.800</i>
Output:065103	Industrial and technological Incubation		
<i>Description of Outputs:</i>	<p>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.</p> <p>2. There are currently 13 interested in Materials and Mineral Engineering Business incubation who shall be accessed aimed to create 30 jobs</p> <p>3.Establishing one dairy incubation centre in Ntungamo</p> <p>4.Monitoring and evaluation of virtual incubatees</p> <p>5.Consumables for bamboo plant to commercialize toothpick and mats production lines in Kabale and at UIRI</p> <p>6.Support towards sustainability & improvement of virtual incubatees' production capacity</p> <p>7. Take on four new incubatees under Production Systems i.e USSIA, IEN, Tropical Connections, IKN Holdings</p> <p>8.2.Trained incubateesApproval of requisitions for training materials</p> <p>9.3.New commercialised</p>	<p>1.UIRI has taken on 2 incubatees dealing in Natural product development</p> <p>2.Watoto Childcare Ministries are producing Shea butter bathing soap and liquid soap. Undergoing in-house production management training using their own machinery. They have got a premise where they are due to shift during the course of the next quarter. Watoto Child Care Ministries has produced about 1,000 litres of liquid detergent and 200 pieces of shea butter based toilet soap</p> <p>3.Kess Biotech Inc. Has improved on the solid state production technology and become more efficient in production of enzymes</p> <p>4.Progress East African Group : in production of Liquid Detergent, Hand washes and Disinfectants. Succeeded in getting a site where he is producing his products. Products taken to UNBS and passed. His products have been allowed space in several supermarkets</p> <p>5.Hellen Kawalya's Banana wine is still under development</p> <p>6.Nasser Segujja's Banana juices is on market and developing international market. Has paid for banana juicing machinery to be fabricated in the Engineering Department</p> <p>7.E-Tech incubatee is under taking development of Smart Battery Charger, Battery Load</p>	<p>•BUSINESS INCUBATION: This involves supporting and nurturing start-up businesses so that they grow into sustainable enterprises. We provide equipment and facilities such as physical space, laboratory services, skills training, market and other business services.</p>

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<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	<p>productsProcurement of training materials</p> <p>10.4.Increased production capacity in the juice pilot plant</p> <p>11.5.New job opportunitiesCommercialisation of new products for incubatees</p> <p>12.Initiation and approval of a requisition for a batch pasteuriser</p> <p>13.Procurement of a batch pasteuriser</p> <p>14.</p> <p>15.Installation of the batch pasteuriser</p> <p>16.Improved 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</p> <p>17.Provide technical support for refinement of existing incubatee products</p> <p>18.undertake incubateemonitoring and evaluation of incubatees(both in-house and virtual)</p>	<p>Tester, Power Surge Protectors, Electronics Science Teaching Modules, Moisture Meters, Signal Generators, Power Supplies and offering Technical Support for Training Activities.</p> <p>The Instrumentation Division continues to support the projects. Currently they are prototyping and undertaking hardware/software integration testing stages.</p> <p>8.Mekia Ltd. Is an embedded systems application development company and their flagship projects are a power theft detector and a transport monitoring unit. They are also finalists for the Africa Prize for Engineering Innovation funded by the Royal Academy of Engineering in the UK. CD Life Sciences is a group from Makerere University with backgrounds in microbiology and Immunology and they are working on a paper based diagnostic kit for early HIV detection and drug resistance. They have both completed business proposals and are currently going through the approval process with senior UIRI management.</p> <p>9.At Kayabwe Mpigi fruit Juice Facility production of some Ready To Drink Orange fruit drinks (Splendid juice) was undertaken . The project beneficiaries' production team has been trained and daily production activities are to commence soon. The project beneficiaries requested UIRI to help them procure other production inputs apart from fruits, for a 6-month production period because they did not have start-up capital.</p> <p>10.The Meat Technology is operating at full capacity of 12 in- house incubatees</p>	
		Technologies Deployed	

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		1.The Engineering Development has successfully developed and fabricated a Banana Juice Press and trails have been successful 2.The Engineering Department is undertaking replication of simple briquette machinery 3.Fabrication of charcoal briquette making machinery with Incinerators(02), mixer (01), crusher(01), press (02) 4.Fabrication of Boda ambulance cart for Mbarara University of Science and TechnologyCutting, joining, finishing, mounting and assembling of part components 5.Fabrication of meat and fish sorting tables -06 fish tables, 06 meat tables 6.Fabrication of drainage gratingshearing, bending and spot welding the covers 7.Fabrication of juice press with a shearing, rolling and welding 8.Establishment of a test facility for bioethanol production 9.Construction of a bioethanol cooking stove prototype	
<i>Performance Indicators:</i>			
No. of technologies deployed with incubatees	25	9	25
No. of SME's incubates taken on	50	22	15
<i>Output Cost: UShs Bn:</i>	1.702	<i>UShs Bn:</i> 0.405	<i>UShs Bn:</i> 1.600
Output: 065104	Model Value Addition Centre Establishment		
<i>Description of Outputs:</i>	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 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	12 local raw materials have been developed and populated in the scientific databases Model Value Addition Centers at 75% Completion 1.Arua Savoury Classic meat processing Plant - Construction is ongoing and works are at 90% complete. 2.Fruit juice processing plant in Itojo - Construction works are at 90 % complete. Supply of water and electricity to site is awaiting approval. 3.Proposed Model Dairy Farm in Ntungamo - Most of the civil works to include a sub structure,	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 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

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<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	reduction	walling, roofing, sanitary facilities, internal and external finishes, external works are done. Various changes at the request of the machinery supplier are being implemented in preparation for installation of machinery.	reduction
	<p>The following Model Value Addition Establishments are at different stages as detailed here below</p> <p>1.Establish a functional Fruit juice and water processing facility in Kawempe by modification of an existing processing facility</p> <p>2.Development of new products for the centres and training of production staff</p> <p>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</p> <p>4.Maziba Winery Project, Kabale</p> <p>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.</p> <p>5.Establishment of a Model Dairy Farm in Ntungamo</p> <p>The establishment of a model farm entails constructing a Dairy shade, Feeding shade, Chaff Cutter shade, Milk collection area.</p> <p>Site has been handed over to the Contractor for commencement of work.</p> <p>6.Extra works at Essential Oils Pilot Project Luweero</p> <p>Construction of allowed variation for additional scope to include office premises and wet areas is underway at 90% of works complete.</p> <p>7.Construction of a nursery shed at Essential oils Luweero</p> <p>Construction of a nursery shed at Luweero Essential Oils is underway. Civil works</p>	<p>4.Proposed Chemistry Laboratory Refurbishment into a Model Chemistry - 90% of civil works are done. Pending variations include installation of aluminum vents, aluminum doors and air conditioning. This is aimed at conforming to the requirements of ISO 17025 for laboratory accreditation</p> <p>Products up-scaled and commercialized by the centers</p> <p>1.Handmade paper</p> <p>2.Cosmetics</p> <p>3.Dairy products</p> <p>4.Meat products</p> <p>5.Jackfruit Ready to Drink and Cocktails</p> <p>6.A new vegetable sausage formulation was arrived at through several trials. The Vegetable sausages are yet to be commercialized by Divine Organic Foods Company</p> <p>7.Bakery and confectionary products</p> <p>8.Fruit juice and fruit jam products</p> <p>9.Stone technology products</p>	

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Vote Summary

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	<p>Construction were completed. Welding works are pending</p> <p>8. Proposed Fruit juice processing plant in Itojjo 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</p> <p>9. Proposed Cheese processing plant at Rubale Ntungamo District 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.</p> <p>10. Proposed Soap processing plant in Kabale Industrial Area for Yildi enterprisisis 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.</p> <p>11. Proposed rehabilitation of Esia mixed farm, Adjumani Rehabilitation of the facility and activity scope to be discussed with UIRI Management</p> <p>12. Tile manufacturing facility in Wakiso Designs and Bills of Quantities have been prepared for establishment of a manufacturing facility for Tiles in Wakiso</p> <p>13. Proposed Peanut Processing Plant in Soroti District 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 approval.</p> <p>14. Development of a Fabrication Lab for small scale</p>		

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Vote Summary

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	<p>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.</p> <p>15.Internal Painting of selected Buildings at UIRI 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</p> <p>16.Proposed Chemistry Laboratory RefurbishmentModel Chemistry A Model Chemistry laboratory to facilitate the research activities currently being undertaken is ongoing. Contractor was procured. Construction work scheduled to begin in Q3.</p> <p>17.Proposed Renovation of TDC Engineering workshop floor A hard wearing suitable floor surface for activities being carried out on the workshop is required for reinforcement of workshop floor surface with terrazzo. Renovation works in the workshop floors commenced and are underway.</p>		
<i>Performance Indicators:</i>			
No. of products up-scaled and commercialized by the centres	35	9	35
No. of model value addition centres at 75% completion	1	4	4
No. of local raw materials developed and populated in the scientific databases	45	12	55
<i>Output Cost: UShs Bn:</i>	<i>0.619</i>	<i>UShs Bn:</i>	<i>0.156</i>
			<i>UShs Bn: 1.110</i>
Output:065105	Facility Repair and Maintenance		

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Vote Summary

<i>Vote, Vote Function Key Output</i>	2015/16 Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
<i>Description of Outputs:</i>	<ol style="list-style-type: none"> 1.Repair and maintenance of machinery and equipment for a well maintained pilot plant 2.Procurement and upgrading of the Existing Wastewater Treatment Plant with Advanced Immobilized Cell Reactor (AICR) Smart Treatment Plant (STP) 3.Establishment of a model wastewater treatment plant for training. 4.Cleaning materials & protective wear 5.Fuel For the Boiler and Standby Generator 6.Repair of Microwave Digester(Multiwave 3000) 7. Repair the laboratory Refrigerator(EkoFrigoLab 1500) and Freeze Dryer (Telstar LyoAlfa 6) 8.Undertake routine preventive maintenance for HPLC (2), AAS, CHN, and Uv/visible Spectrometer 9.Undertake calibration of Analytical balance, 2 ovens, 2 muffle furnance, water bath & pH meter 10.Repair of Food Laboratory fridges by replacing the funs and utilise the fridge for chilling/freezing samples 11.Repair of the centrifuge to separate sample components using the gabber centrifuge 12.Procurement of testing equipment and kits for wastewater treatment plant. To ensure efficient and effective performance of the plant. 13.Construction and installation of new washrooms/toilet for the pilot plantTo improve on the hygiene and congestion during time of training 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. 15.General servicing and repairs of Pilot plant 16.3rd phase water overhaul 	<p>The following were machines and equipment that were maintained during Q1</p> <ol style="list-style-type: none"> 1.Calibrated analytical, Ph meter, drying ovens and water-bath by Uganda National Bureau of Standards 2.The Instrumentation Team continuously works on several electrical and electronic faults on equipment's around the UIRI campus, all this work is documented in an equipment fault log and a detailed report is available every quarter. 3.Preventive maintenance activity for all plant machines at Kayabwe Mpigi fruit Juice Facility were undertaken. 4.6 equipment, the sausage filler, bowl cutter, meat mincer and 2 cold rooms were repaired and serviced. Power installations were also done on the ice flake machine. The Meat Technology equipment are now in good working condition 5.Plumbing, on-campus and off-campus. Internal water piping for instrumentation, vaccine, microbiology and UNBS labsExcavation of the soil for the new pipe line, Cutting concrete at the verandah for diverted new pipe line, Drilling of concrete walls where the pipes are to pass, Tapping of new pipes line and installation into the building, Backfilling of trenches, Construction of inspection chamber for valve and screening/filling the cut & drilled concrete. 6.Water Installation for the fish project in meat plantinstallation of new water line was completed. 7.Water project at Karubuga Dairy Farm – Ntungamodrilling, piping, pumping and reservoir was completed. 8.Repair of water facility at Lira peanut butter plant was completed. 9.Installation of ice producing machine was completed 	<ol style="list-style-type: none"> 1.Repair and maintenance of machinery and equipment for a well maintained pilot plant 2.Procurement and upgrading of the Existing Wastewater Treatment Plant with Advanced Immobilized Cell Reactor (AICR) Smart Treatment Plant (STP) 3.Establishment of a model wastewater treatment plant for training. 4.Cleaning materials & protective wear 5.Fuel For the Boiler and Standby Generator

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Vote Summary

<i>Vote, Vote Function Key Output</i>	2015/16 Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	(internal piping system) 17.To replace the corroded old pipe and improve on the pipe layout. 18.Maintenance tools & equipmentTo improve on work efficiency and service delivery. 19.Maintenance worksTo maintain better performance of the utility 20.Professional capacity development trainingTo improve on skills and knowledge for better performance. 21.UIRI facilities shall require fumigation services, 22.Cleaning Materials to include fuel for mauler, toilet paper, soap(liters), detergents, toilet brushes, brooms, contracting rubbish disposal, towels, tarpaulins 23.First Aid Boxes for the four pilot plants 24.Microbiology and Biotechnology Equipment calibration 25.Equipment service and preventative maintenance 26.Chemistry civil worksRepairs & remodeling 27.General plant clean up and maintenance of the Materials and Mineral Engineering Division 28.Functional machinery and equipment 29.Repair and maintenance of machinery 30.Repair of Kilns, Extruder and Ball mills of the Materials and Minerals Engineering Division 31.Well maintained pilot plant and improvement of civil works 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 33.There shall be continued maintenance (Repair, replacement and servicing) of	10.Water & Sanitation works at Maziba Winery project – Kabaleacquire connections and fittings and carry out installation works were all done 11.Renovation of ceramics washroomsExcavate, replace old GI line, tiles and fittings with matching PPR/HDPE line, new tiles and fittings was completed 12.Electrical, on-campus and off-campus - Installation of Exhaust /Extraction fans in Ice cream and Yoghurt plant. Two fans already installed. 13.Meat plant generator Set, repair, maintenance and servicing-generator was assessed requisition generated, - waiting for issuing LPO and supply of materialsProcurement of spares, servicing of generator 14.Installation of 150Kva at UPIK Campus - Procurement and installation of generator is underway 15.Replacement of faulty power line in meat plant -Procurement and installation of the line 3-phase electrical installation and wiring of Maziba winery. Procurement of industrial wiring cables and accessories and installation is underway. 16.Overhead Electrical installation work and machinery installation for Itojo Fruit Juice Overheadworks: fixing of the pylons, transformer installation, underground cable lay out, meter box installation, for internal works: equipment/machinery layout, ,cable lay out, power supply, test running, commissioning. 17.Overhead Electrical installation work and machinery installation of Karubuga Dairy Farm. Overheadworks: fixing of the pylons, transformer installation, underground cable lay out, meter box installation, for internal works: equipment/machinery layout, ,cable lay out, power supply,	

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Vote Summary

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	<p>electrical and electronic appliances and Serviced equipment and appliances by Instrumentation Division</p> <p>34.Repair and creation of extra data ports in the BDC requires purchase of materials necessary and gear</p> <p>35.Hire of external company to undertake maintenance of over 30 printers</p> <p>36.Hire of external company to undertake maintenance of over 150 computer</p> <p>37.Replace ICT consumables like printers toners, computer accessories, fax ribbon, computer mice, keyboards, UPS batteries whenever applicable</p>	<p>test running, commissioning.</p> <p>18.Installation and modification of electrical and mechanical system of EASIA mixed farm rice and maize processing facility, Adjumani.Cable lay out, termination improve on the space by improving on civil works ventilation mechanical modification of the waste machine and installation of the cyclones</p> <p>19.Mechanical repairs, on-campus and off-campus.</p> <p>Replacement of hydraulic seals on central piston for sausage feeler machine in meat plant.New seals were replaced</p> <p>20.Overhaul of the pineapple screw juice machine. Replacing all the bearings, Carpentry repairsis ongoing</p>	
	<i>Output Cost: US\$ Bn:</i> 0.600	<i>US\$ Bn:</i> 0.150	<i>US\$ Bn:</i> 0.500
Output:065106	Industrial Skills Development and Capacity Building		
<i>Description of Outputs:</i>	<ol style="list-style-type: none"> 1.Provide skilled & practical internship training to students 2.Train skilled SMEs 3.Train Small cottage industries for fruits and vegetables processing created 4.Train SMEs in reduction of post-harvest losses 5.Hands on training for 6 people in bamboo processing skills, bamboo, processing chemicals, packaging material 6.Three Internships to be offered in Molecular Biology& Biotechnology and Microbial analysis 7.Train 200 in cosmetics formulation, biotechnology and microbial analysis in Culture media, chemicals and reagents 8.Training of production staff 9.Train skilled & practical internship students in food processing and quality management 10.Train skilled SMEs 11.Train different groups that are establishing small cottage industries in reduction of post-harvest loss handling 12.Certifications to be done in 	<ol style="list-style-type: none"> 1.62 trained in cosmetics, soap, detergents & toiletry product formulation 2.20 students University students trained in microbiology analytical techniques 3.44 Students of MUK, KYU, IUIU, MUBS were trained in Dairy Processing 4.Trained 252 people in the use of ICT to enhance business efficiency.Trainings done in introduction to computers, database design and management, and website design and management at the BDC and off campus sites 5.Trained 4 students/ scientists from Makerere University in Good Laboratory Practice (GLP) and chemical analysis. 6.The Bakery Technology conducted trainings for clients in the bakery industry these include: 12 people trained in Kalangala. 13 farmers from Bugweri trained. 7.10 students of St Agness. 15 people from USSIA trained and 8 students from Drucilla Balaba 	<p>Development of human resource skills needed for comprehensive handling of new and existing technologies aimed at achieving market and product research match, appropriate and cost effective technologies for promotion and development of value added industries especially the agro-industries</p>

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Vote Summary

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	<p>Networking, Programming, hardware maintenance for Internal staff capacity strengthening</p> <p>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 UIRI shall provide Instrumentation skills development</p> <p>14. Advanced Embedded Systems and Advanced applied electronics</p> <p>15.Hardware Description Language, Applied Instrumentation and Control Engineering</p> <p>16.Computer Applications and databases for embedded systems, Double sided PCB design and processing and surface mount technologies</p> <p>17.Real Time Operating Systems (RTOS) and Project and System Engineering Management</p> <p>18.Provide training to 5 people in special skills relevant their Materials and Minerals Engineering skills gaps paradox Chemistry laboratory</p> <p>19.Train 100 students in Good Laboratory Practice (GLP) and chemical analysis. Makerere University, Kyambogo University, Mulago Paramedics, Uganda Petroleum Institute Kigumba (UPIK) ICT</p> <p>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</p> <p>21.Provide enrolled incubates training on how to start, manage a business and incorporate ICT for business efficiency (both on site and outreach programs)</p>	<p>VS trained in Dairy Processing 8.40 workers of in-house Dairy incubatees were trained in GMP,GHP</p> <p>9.Trained (07) Drucilla Balaba Vocational School students from Kabale district from 7th September 2015 to 11th September 2015.</p> <p>10.Trained (32) students from higher institutions of learning(KYU, MUK, IUIU & Busitema University) from 4th August to 6th and 28th August 2015</p> <p>11. Trained (08) Luuka Community Development Group participants from Luuka district from 6th July to 31st July 2015. Demonstrations in making bread, buns, cakes, doughnuts, mandazi & cookies were done.</p> <p>12.28 people from various groups of prospective entrepreneurs under different groups/associations have received hands on training in Fruits and Vegetables Processing Tech.</p> <p>13.35 interns students were trained in meat processing and production</p> <p>14.20 other participants from different groups were trained in meat processing</p>	

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Vote Summary

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
	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		
	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		
	24. Participate in BDC strategic exchange programs with other institutions for capacity building		
	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		
	26. At least two primary market surveys carried out Analysis of incubates business systems, conceptualization of both manual and possible automated systems, design, testing and deployment of developed systems		
	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		
	28. Commercialization of the video conferencing facility. Video conferencing subscription fees to be established		
<i>Performance Indicators:</i>			
No. of apprenticeships taken on	80	22	80
No. of SMEs trained in industrial development and	1,000	610	1200

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Vote Summary

<i>Vote, Vote Function Key Output</i>	Approved Budget and Planned outputs	2015/16 Spending and Outputs Achieved by End Sept	2016/17 Proposed Budget and Planned Outputs
value addition processing			
<i>Output Cost: UShs Bn:</i>	0.150	<i>UShs Bn:</i> 0.060	<i>UShs Bn:</i> 0.120
Vote Function Cost	UShs Bn: 14.340	UShs Bn: 3.150	UShs Bn: 14.340
Cost of Vote Services:	UShs Bn: 14.340	UShs Bn: 3.150	UShs Bn: 14.340

* Excluding Taxes and Arrears

2016/17 Planned Outputs

FY 2016/17

In the board perspective of FY 16/17 the Institute plans to undertake the following

1. Research and Development

Value addition, Agro Processing Program and product development

- The Institute will continue to identify new uses for existing raw materials, improvement and adaptation of materials to higher technology application and develop an integrated matrix for value addition

2. Establishment of a Scientific and Technological Innovation hub for Industrial development

3. Industrialization Program through establishment of Model Value Addition Centres

4. Establishment of a Packaging Centre of excellence

5. Business Incubation strategy and infrastructure development

6. Establishment of a Machining, Manufacturing and Skills Training Centre at Kampala Industrial Business Park, Namanve

7. Mineral Beneficiation

8. Accreditation of Analytical laboratory and Analytical Laboratory Services

9. Undertake Applied Technology Development and Transfer

10. Budget Support for International Collaboration

Administratively

1. Recruit 47 new Employees

2. Facilitate 46 staff to undertake training and skills development in various fields

3. Pay off staff salaries and benefits of 325 employees

4. Insure Institute Assets Equipment, Vehicles, IT Servers and IT Equipment

5. Paid for subscriptions to scientific institutions, journals and bodies

Under Research and Development

1. Conduct 350 product analyses for quality checks, product development, product refinement and standardization

2. Initiate 50 research project

3. Develop 50 Value added products for industrialization

Industrial and business incubation

1. UIRI shall take 40 business incubates engaged in various business activities aimed at commercialization of different research results

2. 20 technologies shall be deployed with incubatees

Achieved 4 Value addition Centres at 75% completion

1.4 Value Addition Centre shall be established

Facility Maintenance

2. All on-site and off-site facilities machinery, equipment and tools shall be maintained during FY 16/17

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Industrial training and Skills Capacity building

1.UIRI train 1500 SMEs trained in industrial development and value addition processing and business management

2.40 apprentices shall be taken on

Popularization of research and technological results

UIRI shall continue to publicize its research and technological results via trade shows, exhibitions and publications in journals and newspaper supplements; attending conferences, workshops and trainings which provide platforms for information/ knowledge sharing

Government Buildings and Administrative Infrastructure

Operationalization of the established government facilities shall be key

Purchase of Specialised Machinery & Equipment

The institute shall continue to undertake procurement of planned machinery equipment and tools for Technology Development Center, Product Development, Production Systems and Finance and Administrative Directorates as budgeted

Table V2.2: Past and Medium Term Key Vote Output Indicators*

Vote Function Key Output Indicators and Costs:	2015/16		MTEF Projections			
	2014/15 Outturn	Approved Plan	Outturn by End Sept	2016/17	2017/18	2018/19
Vote: 110 Uganda Industrial Research Institute						
Vote Function:0651 Industrial Research						
No. of product analyses undertaken for quality checks		55	94	3032	4000	5000
No. of research projects initiated		60	24	15	20	25
No. of value added products developed for industrialisation to reduce post harvest losses				45	50	55
No. of value added products developed for industrialisation to reduce post harvest losses.		40	15			
No. of SME's incubates taken on		50	22	15	20	25
No. of technologies deployed with incubatees		25	9	25	35	45
No. of local raw materials developed and populated in the scientific databases		45	12	55	60	65
No. of model value addition centres at 75% completion		1	4	4	4	4
No. of products up-scaled and commercialized by the centres		35	9	35	40	45
No. of SMEs trained in industrial development and value addition processing		1,000	610	1200	1500	1700
No. of apprenticeships taken on		80	22	80	100	120
Vote Function Cost (US\$ bn)	14.405	14.340	3.150	14.340	16.608	18.672
Cost of Vote Services (US\$ Bn)	14.405	14.340	3.150	14.340	16.608	18.672

Medium Term Plans

Bearing in mind that, just like any other Institution, UIRI is not immune to the challenges of inadequate financing which continue to impede the Institute's efforts in pursuing technology transfer, value addition, and meaningful contribution towards industrialization.

UIRI's medium term strategy is to;

- Establishment of a Regional Hub for Science, Technology, and Innovations (STI) in East and Central

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Africa in support of industrialization of EAC states.

- Establish platforms for value addition and product development
- Take technology to the people through the establishment of Model Agro- Processing facilities upcountry as per National agricultural zoning of resource abundant areas.
- Technology based business incubation
- Engaging in prudent technology transfer, technology development and fabrication of machinery
- Develop electronic and electric components

- Establishment of Model Agro- Processing facilities as per National agricultural zoning of resource abundant areas

- Skills development through training of entrepreneur and community based groups
- Develop the Essential oil sector in Uganda
- Support to manufacturers and scientists through provision of analytical laboratory services
- Establish Uganda Shea Butter processing Platform
- Establish a strong and vibrant business incubation center
- Establish adequate industrial infrastructure to stimulate industrialization
- Kick start small business enterprises for government revenue generation through taxes
- Develop skills capacity for meaning R&D
- Strengthen collaboration relations with sister institutions
- Embark on transfer of cost effective technologies and processes
- Deploy processing facilities as per the national agro zone regions and availability of raw materials for startup of primary industry.
- Creation of metallurgical center of excellence.

(ii) Efficiency of Vote Budget Allocations

The justification is aimed at propelling Competitiveness; Wealth creation; Employment; and Inclusive growth.

Competitiveness demands products that are of high quality. Production of products and services that can measure up to the standards of intended markets. The choice of the product that an entrepreneur aspires to deal in must also have a competitive edge over other available substitute products. How unique is the product on offer?

- Development of quality products remains a core consideration to UIRI's contribution towards the national industrialization efforts.
- Thus UIRI intends to continue championing for a quality conscious society through skills training, joint research, product development & formulation, industrial process designs and in its business incubation program.

Wealth Creation

- While addressing the issue of wealth creation, one needs to distinguish it from poverty reduction. Poverty reduction applies to incremental impact on the quality of life of the peasantry. Basic value addition can only lead to poverty reduction, unless and until it is scaled up, whereas establishment of large scale industry is a necessary condition that leads to wealth creation for which will be the outcome of the planned activities Inclusive growth/increased household incomes

- Government must therefore help establish large scale industries, develop and manage them. Initiatives like the Youth fund are not good substitutes for accelerated wealth creation. Import substitution, reduction of appeal towards substandard goods, improved level of skills and competence are the desirable outcomes of industrialization. Addressing both poverty reduction and wealth creation will invariably lead to inclusive growth.

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Creation of higher levels of employment

- It should be appreciated that the progression from farm level production, to value addition, to primary industry and to manufacturing capacity resulting into high value products, product diversification and global competitiveness.
- Increase in farm level production can be stimulated through enhanced and empowered cooperative movements.
- Value addition contributes to increased farm level production because it eliminates postharvest loss and improves on incomes. The comprehensive value chains, in conjunction with skills training, will lead to higher levels of employment.

Table V2.3: Allocations to Key Sector and Service Delivery Outputs over the Medium Term

Billion Uganda Shillings	(i) Allocation (Shs Bn)				(ii) % Vote Budget			
	2015/16	2016/17	2017/18	2018/19	2015/16	2016/17	2017/18	2018/19
Key Sector	11.0	11.1	12.1	13.7	76.4%	77.7%	72.8%	73.5%
Service Delivery	3.1	3.3	4.7	4.9	21.4%	23.2%	28.5%	26.1%

Table V2.4: Key Unit Costs of Services Provided and Services Funded (Shs '000)

(iii) Vote Investment Plans

Table V2.5: Allocations to Capital Investment over the Medium Term

Billion Uganda Shillings	(i) Allocation (Shs Bn)				(ii) % Vote Budget			
	2015/16	2016/17	2017/18	2018/19	2015/16	2016/17	2017/18	2018/19
Consumption Expenditure(Outputs Provided)	11.5	11.6	13.7	15.5	80.5%	80.8%	82.7%	82.9%
Investment (Capital Purchases)	2.8	2.7	2.9	3.2	19.5%	19.2%	17.3%	17.1%
Grand Total	14.3	14.3	16.6	18.7	100.0%	100.0%	100.0%	100.0%

1. Industrialization Program through establishment of Model Value Addition Centres
2. Establishment of a Packaging Centre of excellence
3. Business Incubation strategy and infrastructure development
4. Establishment of a Machining, Manufacturing and Skills Training Centre at Kampala Industrial Business Park, Namanve
5. Mineral Beneficiation
6. Accreditation of Analytical laboratory and Analytical Laboratory Services
7. Undertake Applied Technology Development and Transfer harvest management technologies
8. Provision of post
9. Machinery and Equipment and
10. Construction of model value facilities
11. Establishment of a Scientific and Technological Innovation hub for Industrial development

Table V2.6: Major Capital Investments

Project, Programme Vote Function Output <i>US\$ Thousands</i>	2015/16		2016/17
	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by September (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
Project 0430 Uganda Industrial Research Institute			
065172 Government Buildings and Administrative Infrastructure	- Establish a functional Fruit juice and water processing facility in Kawempe by modification of an existing processing facility	Government buildings and Administrative Infrastructure are in advanced stages of completion however all the other launched facilities are	1. Proposed warehouse for cereals in Mbarara 2. Proposed construction of a winery in Mbarara 3. Construction of a Tile factory

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Vote Summary

Project, Programme Vote Function Output <i>US\$ Thousands</i>	2015/16 Approved Budget, Planned Outputs (Quantity and Location)	2015/16 Actual Expenditure and Outputs by September (Quantity and Location)	2016/17 Proposed Budget, Planned Outputs (Quantity and Location)
	<p>- Development of new products for the centres and training of production staff</p> <p>- 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</p> <p>- Maziba Winery Project, Kabale 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.</p> <p>- Establishment of a Model Dairy Farm in Ntungamo The establishment of a model farm entails constructing a Dairy shade, Feeding shade, Chaff Cutter shade, Milk collection area.</p> <p>Site has been handed over to the Contractor for commencement of work.</p> <p>- Extra works at Essential Oils Pilot Project Luweero Construction of allowed variation for additional scope to include office premises and wet areas is underway at 90% of works complete.</p> <p>- Construction of a nursery shed at Essential oils Luweero Construction of a nursery shed at Luweero Essential Oils is underway. Civil works Construction were completed. Welding works are pending</p> <p>- Proposed Fruit juice processing plant in Itojjo 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</p> <p>- Proposed Cheese processing plant at Rubale Ntungamo District Works include to design for construction of the Cheese Processing Facility is underway. Site reconnaissance, to assess the nature of land, was done by</p>	<p>functional</p> <p>1.24TH July 2008UIRI Incubator Capability Launch at UIRI Campus</p> <p>2.14th September 2008 the Mushroom Training Resource CenterKabale was launched</p> <p>3.25th December 2010; Potato Processing Plant in Kabalewas visited by H.E Y.K Museveni</p> <p>4.27th August 2011; Brentec Vaccine Production Unit at UIRI Campus was launched</p> <p>5.9th October 2011; the Peanut Processing Plant in Lira was launched</p> <p>6.Nabusanke Juice Processing Plant in Mpigi district was visited</p> <p>7.20th December 2013; the Juice Processing Plant in Arua was launched</p> <p>8.15th January 2015; Kigezi Highland Beverages Ltd in Kabale was launched</p> <p>9.21st June 2015Maziba Wine Processor in Kabale was launched</p>	<p>in Wakiso</p> <p>4.Construction of a barkery and honey processing plant in Kabale</p> <p>5.Construction of a Poultry feed factory in Kamwenge</p> <p>6.Construction of a Fish hatchery and feeds factory in Kamwenge</p> <p>7.Internal Painting and retiling of selected Buildings at UIRI</p> <p>8.Refurbishment of the Bamboo plant at UIRI</p> <p>9.Refurbishment of defective sections of the southern boundary wall at UIRI</p> <p>10.Proposed construction of the western 10m boundary wall at UIRI</p> <p>11.Proposed repair works at UIRI plant in Lira</p> <p>12.Proposed repair works at UIRI plant in Kabale</p> <p>13.Construction of a smoke house at UIRI meat processing plant</p> <p>14.Proposed Chemistry Laboratory Refurbishment</p> <p>15.Proposed Renovation of TDC Engineering workshop floor</p> <p>16.Proposed laying of drainage line from septic tank to waste water treatment plant and construction of a drainage channel</p> <p>17.Electric fence repair at UIRI</p> <p>18.Proposed Cold room at the dairy plant, UIRI</p> <p>19.Proposed Fruit juice processing plant in Itojjo</p> <p>20.Proposed rehabilitation of cafeteria building and construction of Ecosan toilets at ITOJJO</p> <p>21.Arua Savoury Classic meat processing Plant</p> <p>22.Construction of an Irrigation system to distribute water to trial plots at M/s Millionaire gals , Kamira, Luwero</p> <p>23.Rehabilitation of the Essential oils pilot plant in Luwero</p> <p>24.Proposed rehabilitation of Esia mixed farm, Adjumani</p> <p>25.Proposed Model Dairy Farm in Ntungamo</p> <p>26.Proposed Peanut paste Processing plant in Soroti district</p> <p>27.Proposed Cheese processing</p>

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Vote Summary

Project, Programme Vote Function Output <i>US\$ Thousand</i>	2015/16 Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by September (Quantity and Location)	2016/17 Proposed Budget, Planned Outputs (Quantity and Location)
	<p>the UIRI technical team on 17th Sep 2014. Bills of Quantities have been prepared.</p> <p>- Proposed Soap processing plant in Kabale Industrial Area for Yildi enterprises is 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.</p> <p>- Proposed rehabilitation of Esia mixed farm, Adjumani Rehabilitation of the facility and activity scope to be discussed with UIRI Management</p> <p>- Tile manufacturing facility in Wakiso Designs and Bills of Quantities have been prepared for establishment of a manufacturing facility for Tiles in Wakiso</p> <p>- Proposed Peanut Processing Plant in Soroti District 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 approval.</p> <p>- 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.</p> <p>- Internal Painting of selected Buildings at UIRI 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</p> <p>- Proposed Chemistry Laboratory</p>		<p>plant at Rubale Ntungamo district</p> <p>28. Proposed soap production and lemon grass essential oil processing plant for YILDI enterprises)</p> <p>29. Proposed fruit juice processing plant for Masindi Fruits Farmer's Company)</p> <p>30. Maziba Winery Project, Kabale</p> <p>31. Proposed G.nut processing plant in Agago</p> <p>32. Proposed Soap processing plant for Ikrah at Lwengo</p> <p>33. Kika fruit juice processing plant, Luweero</p> <p>34. Supervision of running projects (4 site visits for 2 Civil works staff per month)</p> <p>35. Expand production lines in the UIRI Dairy Processing Pilot Plants Set up a cheese Pilot plant to enhance in-house business incubation services</p> <p>36. Banana processing center in Mbarara. Production of paper, briquettes, textile, banana juice, fertilizers and animal feed from banana</p> <p>37. Construction of Handmade paper structure for housing a full-line of making paper and other related products</p> <p>38. Renovation of PCB Facility into Fab Lab Kampala and equipment procurement: Remodeling of the existing Instrumentation PCB Facility into Fab Lab phase 1 Remodeling of the existing Instrumentation PCB Facility into Fab Lab phase 2 Consultancy and procurement of equipment</p> <p>39.1 for cosmetics and bar soap Identify entrepreneur's; Equipment acquisition</p> <p>40.1 for lactic acid and bio-plastics from cassava-Identify entrepreneur's; Equipment acquisition</p> <p>41.6 products developed, up-scaled and commercialized - Details described under lactic acid, and cosmetics</p> <p>42.5 bioactive herbal extracts and cassava lactic acid and bio-plastics Planned research analysis</p>

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Vote Summary

Project, Programme Vote Function Output <i>US\$ Thousand</i>	2015/16		2016/17
	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by September (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
	<p>Refurbishment Model Chemistry A Model Chemistry laboratory to facilitate the research activities currently being undertaken is ongoing. Contractor was procured. Construction work scheduled to begin in Q3. - Proposed Renovation of TDC Engineering workshop floor A hard wearing suitable floor surface for activities being carried out on the workshop is required for reinforcement of workshop floor surface with terrazzo. Renovation works in the workshop floors commenced and are underway.</p>		
Total	980,000	299,906	800,000
<i>GoU Development</i>	<i>980,000</i>	299,906	<i>800,000</i>
<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>
065177 Purchase of Specialised Machinery & Equipment	<p>This involves procurement of specialised equipment, design and fabrication of Specialized Machinery - Newcastle Vaccine Dropper Bottles - Pathogen Free Eggs - Newcastle Vaccine Laboratory Supplies - Moisture Analyzer Analysis of residual moisture in the vials after lyophilisation. It will facilitate the determination of extended expiry periods. - Refrigerators for storage of large quantities of finished product - Installation of walk in freezers for meat pilot plant - Procuring meat equipment for the meat pilot plant - Procurement of meat equipment for Virtual incubatees - Upgrade fruits and vegetable pilot plant equipment - Procurement of equipment for the new cheese pilot plant (50-100kg per shift) - Procurement of a toothpick packaging machine - Procurement of a continuous ice cream freezer - Procurement of new dairy equipment to upgrade milk powder plant to 1 ton per shift - Extraction of orange juice</p>	<p>The following machinery, equipment and tools have been or are being procured to facilitate Research and Development 1. Chemistry Laboratory furniture, fittings and laboratory fume hood are being procured 2. LC for dairy packing machine to be opened with M/s Sunita . Plate heat exchanger & spares Supplied by M/s Nikos Hranengineering already installed 3. Procurement process for supply of dairy equipment initiated 4. Procurement process for supply of 15,000 Litres of Furnace oil initiated 5. Contract Signed with M/s Engineering Solution to supply and install the equip 6. M/s Afroplast has delivered packaging materials 7. Commercial blenders, water boiler, sealer, pH meter and precision weighing scale are being procured 8. Purchased Workshop Equipment and Safety Gear for Instrumentation Division 9. Purchased High Priority Electronic Accessories for Instrumentation Division</p>	<p>CHEMISTRY 10. Preventive maintenance and service of high-tec lab equipment's per year 11. Procurement of Laboratory Centrifuge 12. Procurement of Analytical Balance 13. Procurement of GC-MS (for Essential oil analysis) 14. Procurement of FTIR libraries (4) 15. Procurement of Gases (acetylene, Helium, and Oxygen) 16. Procurement of mobile laboratory 17. Procurement of lab refrigerators 18. Procurement of Infratec Grain analyzer 19. Procurement of soxtec system 20. Procurement of Fibertec system 21. Procurement of keldjaltec system 22. Procurement of drying oven 23. Procurement of water distillation unit 24. Procurement of lab safety cloth, shoes, goggles, eye wash 25. Procurement of hydrogen generator 26. Procurement of Chemicals 27. Procurement of chemistry text books and AOAC methods</p>

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Vote Summary

Project, Programme Vote Function Output <i>US\$ Thousands</i>	2015/16 Approved Budget, Planned Outputs (Quantity and Location)	2015/16 Actual Expenditure and Outputs by September (Quantity and Location)	2016/17 Proposed Budget, Planned Outputs (Quantity and Location)
	<ul style="list-style-type: none"> - Need for modification of the gas pasteurizer to a double jacketed gas pasteurizer - Modification of the juice master - Procurement of Laboratory Analytical Balance - Procurement of Gas Chromatography/ Mass spectrometer (GC-MS) equipment - 10 Analytical Chemistry & Laboratory text books - Procurement of hydrogen generator for GC - Procurement of laboratory centrifuge - Procurement of 4 libraries for FTIR - Procurement of mycotoxin testing kit - Procurement of Laboratory Blender - Procurement of HPTLC set for Natural products - Mobile laboratory (equipment inclusive) - Acquire an effective heat source in the lab - Acquire an equipment that can blend and mix - Sacket packaging technology - Peanut grinding technology for product development - Basic laboratory equipment centrifuge, analytical balance, glass ware, pipette, measuring cylinder, pastuer pipette, beakers, funnels, pipette fillers, reagent bottles, glass rods, conical flask, burette, chemicals and consumables, Hydrochloric acid, sulphuric acid, sodium hydroxide, methyl orange indicator, phenolphthalein, sodium thiosulphate, potassium iodide, starch, sodium chloride, chloroform, ethanol reagent, filter paper(whatman) - Procurement of safety ware, organic respirator, chemical resistant gloves (carton), chemical resistant shoes, and overcoats - Procurement of 2 units of Humidifiers for the button mushroom research Project - Procurement of a florescent microscope with identification software with computer system connected 	<ul style="list-style-type: none"> 10.Purchased High Priority Electronic Equipment for Instrumentation Division 11.Drilling Bits for CNC Machine is under procurement 12.Purchase of Development boards, printed circuit boards and microcontrollers is underway 13.Electronic components for Instrumentation Division Projects - International Order are being procured 14.Components for the Development of the MUTIMA Project prototype have been purchased 15.Op-Amp for MUTIMA project prototype has been procured 	<ul style="list-style-type: none"> 28.UIRI Shop 29.Upgrade the milk powder plant Procurement of new dairy equipment to upgrade milk powder plant to 1 ton per shift Fruits and vegetable technology 30.Orange Pulpers/Extractor 31.Hot plate 32.Sauce pans 33.Glass jars Essential oil 34.Purchase of a portable distillator Food lab 35.Desktop pasteurizer 36.Electrical dryer 37.Evaporator 38.Heavy duty Industrial blender 39.Sacket sealing machine 40.Peanut Grinder 41.Egg Pasteurizer 42.chocolate maker Vaccine 43.Purchase of SPF eggs-Framework Supply of SPF eggs for vaccine production 44.Procurement of Laboratory Supplies and ConsumablesFramework Contract for Supply of Laboratory Supplies and Consumables 45.Purchase of Large Vaccine Fridges -Purchase of Vaccine Fridges for Product Quarantine and Storage 46.Procurement of Stationery - Procure stationary and other office consumables for laboratory activities 47.Procurement of Packaging Materials -Purchase of Glass Vials for 100 dose formulation 48.Upgrade to Real Time Monitoring System - Purchase of more sensors and data loggers to upgrade existing real-time monitoring system 49.At least two monitoring and evaluation surveys carried out-Analysis of household to measure impact of adoption of vaccination at household level and investigate any advance events reported Materials and Minerals 50.Acquisition of a Pressure Casting machine 51.Hydro Cyclone unit - Kaolin Pre-treatment 52.Integrated X-Ray

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Vote Summary

Project, Programme Vote Function Output <i>US\$ Thousands</i>	2015/16		2016/17
	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by September (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
	<ul style="list-style-type: none"> - Procurement of a Plant weighing scale of maximum weight of 100kg - Procurement of an air conditioning system with humidity and temperature control system - Procurement of a Pressure Casting machine. Draw equipment specifications - Procurement of a Hydro Cyclone unit - Kaolin Pre-treatment. Draw equipment specifications - Procure Integrated X-Ray Florescence (XRF) /X-ray Diffracton (XRD) Machine. Draw equipment specifications - Procure sets of Standard Screens/Sieves - Procurement of a Thermal Pyrometer. Draw equipment specifications - Acquisition of Raw Materials - Procurement of safety gears of different sizes and types/brands - Procurement of Ceramics Surface Decoration Equipment - Testing equipment for the juice plant - Procurement of testing equipment - Purchase of a steam jacketed kettle - Purchase of two Domain servers - Purchase of one Storage and replication server - Purchase of two printers to be networked to serve all UIRI staff - Procurement of ICT maintenance firm - Coordinate campus wide and offsite computer maintenance - Procurement of other ICT consumables (4 C5020, 50CD's, 50 DVD's, 2 Fax Film, 10 Flash Disk, 5 HP 130 & 134, 5 HP 131 & 135, 4 HP 13A, 4 HP 2600N, 4 HP 36APCS, 6 Hp 3800, 4 HP 49A, 4 HP 53A, 4 HP 70 A, 4 HP 78d & 45d, 4 HP 5500DN, 5 C530, 1, 2, 3A, 4 HP 35, 6 Toner for HP Desk jet 500 MFP, 4 TK-540 Kyocera toner, 3 Canon C-EXV14, 2 Printer Ribbons, 4 HP 05A, 5 Network Cards, 10 Mouse PCS, 20 Ups Batteries, 14 Extension cables, 10 RAM, 5 CMOS battery - Enhance records management 		<ul style="list-style-type: none"> Florescence (XRF) /X-ray Diffracton (XRD) Machine 53.Acquiring sets of Standard Screens/Sieves 54.Procurement of a Thermal Pyrometer 55.Acquisition of Raw Materials 56.Procurement of safety gears

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Vote Summary

Project, Programme Vote Function Output <i>US\$ Thousand</i>	2015/16		2016/17
	Approved Budget, Planned Outputs (Quantity and Location)	Actual Expenditure and Outputs by September (Quantity and Location)	Proposed Budget, Planned Outputs (Quantity and Location)
	for incubates, and Creation of an alternative source of revenue for the BDC. Purchase of Palladium Ent, QuickBooks, Tally and Business Plan pro - Create more training terminals and repair of existing desk computers in the BDC Lab. This requires purchase of workstation and computers in the BDC Lab - Enhance training at the BDC through acquisition of visual aid tools. This requires purchase of Laptops and projectors for BDC - Provide Internet service, Internet bandwidth provision and subscription		
Total	1,707,971	271,165	1,847,620
<i>GoU Development</i>	<i>1,707,971</i>	<i>271,165</i>	<i>1,847,620</i>
<i>External Financing</i>	<i>0</i>	<i>0</i>	<i>0</i>

(iv) Vote Actions to improve Priority Sector Outcomes

Table V2.7: Priority Vote Actions to Improve Sector Performance

2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
Sector Outcome 1: A Competitive and Export-oriented Industrial Sector			
Vote Function: 06 51 Industrial Research			
<i>VF Performance Issue: Inadequate Application of Scientific Research and Technology for Development</i>			
	Establishment of a regional hub for STI (Science Technology and Innovations) in support of industrialization requiring 2.5bn	Continued training and skills development for staff who will play the role of trainer of trainers to	Development of human resource capacity to undertake applied research; Establish project pilot center in two municipalities; Development of industrial projects and technologies for commercialization
<i>VF Performance Issue: Uncompetitiveness of Local Industries</i>			
	Refurbishment of the Chemistry Laboratory into a Model ISO 17025 accredited laboratory will fast track quality and standard embedded product development and products can compete on regional and international markets. The accreditation process for the Microbiology laboratory is also underway		Set up a technology depository at UIRI; Establish regional business incubation centers in industrial parks; Install a foundry and mineral beneficiation testing lab at UIRI.
Sector Outcome 3: Improved Competitiveness and Market Access of Uganda's Goods and Services			

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Vote Summary

2015/16 Planned Actions:	2015/16 Actions by Sept:	2016/17 Planned Actions:	MT Strategy:
Vote Function: 06 51 Industrial Research			
<i>VF Performance Issue: Inadequate Capitalization of Current Model Processing Facilities and Commercialisation of Business Incubation Projects</i>			
	UIRI continues to hand hold a few business enterprises under the Business Incubation portfolio thou the pace is very slow due to inadequate funding the program is to a large extent successful		Establishment of five multi-function value addition centers across at regional level; Developed value added industries especially agro industries as per the National agro zone centers.

V3 Proposed Budget Allocations for 2016/17 and the Medium Term

This section sets out the proposed vote budget allocations for 2016/17 and the medium term, including major areas of expenditures and any notable changes in allocations.

Table V3.1: Past Outturns and Medium Term Projections by Vote Function*

	2014/15 Outturn	2015/16		MTEF Budget Projections		
		Appr. Budget	Spent by End Sept	2016/17	2017/18	2018/19
Vote: 110 Uganda Industrial Research Institute						
0651 Industrial Research	14.405	14.340	3.150	14.340	16.608	18.672
Total for Vote:	14.405	14.340	3.150	14.340	16.608	18.672

(i) The Total Budget over the Medium Term

(ii) The major expenditure allocations in the Vote for 2016/17

(iii) The major planned changes in resource allocations within the Vote for 2016/17

Table V3.2: Key Changes in Vote Resource Allocation

Changes in Budget Allocations and Outputs from 2015/16 Planned Levels:			Justification for proposed Changes in Expenditure and Outputs
2016/17	2017/18	2018/19	
<i>Vote Function:0601 Industrial Research</i>			
Output: 0651 01 Administration and Support Services			
<i>US\$ Bn:</i> -2.197 n/a	<i>US\$ Bn:</i> -0.527	<i>US\$ Bn:</i> 1.085	A fully constituted staff establishment propels a fully functional structure and consequently delivering the institute mandate
	For recruitment of vacant positions for high caliber scientist and engineers and their retention	For recruitment of vacant positions for high caliber scientist and engineers and their retention	
Output: 0651 04 Model Value Addition Centre Establishment			
<i>US\$ Bn:</i> 0.491 The cost of establishing a fully functional Value Addition Center has increased. A number of Value Addition are already underway at different stages. Thus requiring more fund allocation	<i>US\$ Bn:</i> 1.162 This is aimed at maintaining the momentum to delivering 4 value addition centers per financial year. However it should be noted that the establishment and operationalization of value addition centers cross cut financial years	<i>US\$ Bn:</i> 1.181 This is aimed at maintaining the momentum to delivering 4 value addition centers per financial year. However it should be noted that the establishment and operationalization of value addition centers cross cut financial years	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 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
Output: 0651 05 Facility Repair and Maintenance			

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Changes in Budget Allocations and Outputs from 2015/16 Planned Levels:			Justification for proposed Changes in Expenditure and Outputs
2016/17	2017/18	2018/19	
<i>US\$ Bn:</i> -0.100	<i>US\$ Bn:</i> 0.051	<i>US\$ Bn:</i> 0.100	Well maintained facilities guarantee continued production operations as there this less breakdown.
Establishment of more Value Addition Facilities call for increased servicing, repairs, and maintenance	Establishment of more Value Addition Facilities call for increased servicing, repairs, and maintenance	Establishment of more Value Addition Facilities call for increased servicing, repairs, and maintenance	
Output: 0651 07 Technology, Innovation, Transfer and Development			
<i>US\$ Bn:</i> -0.140	<i>US\$ Bn:</i> 0.260	<i>US\$ Bn:</i> 0.260	This is aimed at reducing the current post harvest rate of 40%. The strategy is to implore efficient post-harvest solutions, value addition, production of competitive products for domestic consumption and export
During FY 16/17 there is going to be a lot of feasibility and planning for post-harvest handling management and development of some post-harvest solutions	UIRI is to undertake massive production of post-harvest management tools, machinery, equipment and technologies. This calls for more funding	UIRI is to undertake massive production of post-harvest management tools, machinery, equipment and technologies. This calls for more funding	
Output: 0651 72 Government Buildings and Administrative Infrastructure			
<i>US\$ Bn:</i> -0.180	<i>US\$ Bn:</i> 0.100	<i>US\$ Bn:</i> 0.120	Functional and operational housing of fully equipped production facilities spur product development for domestic and export markets, provide avenue for employment, increased tax base and increased house hold incomes
Funds have been reallocated to completion of all on going facilities	For establishment and operationalization of new facilities	For establishment and operationalization of new facilities	

V4: Vote Challenges for 2016/17 and the Medium Term

This section sets out the major challenges the vote faces in 2016/17 and the medium term which the vote has been unable to address in its spending plans.

Table V4.1: Additional Output Funding Requests

Additional Requirements for Funding and Outputs in 2016/17:	Justification of Requirement for Additional Outputs and Funding
<i>Vote Function:0601 Industrial Research</i>	
Output: 0651 01 Administration and Support Services	
<i>US\$ Bn:</i> 11.181	Capacity building efforts would mitigate lack of skills, competences and entrepreneurship that is a weakness squarely faced by the country. The acquired skills that are diverse in nature would be distributed across other sister institutions, like the petroleum industry, manufacturing industry which would indeed catalyse the industrialisation process of Uganda.
There is urgent need for Staff recruitment and retention, especially high calibre scientists and engineers and the need to improve emoluments for current and future staff	
Output: 0651 02 Research and Development	
<i>US\$ Bn:</i> 3.500	Additional funding would be directed to re-equipment and accreditation of analytical laboratories, recruitment of high calibre talent to conduct meaningful R&D with ability to operate hi-tech machinery and equipment being procured, support for UIRI business incubator and set up of a modern unit for product development.
Establishment of a regional hub for STI (Science Technology and Innovations) in support of industrialization 2. Seed fund for continuing collaborative research between CSIR, (Council for Scientific and Industrial Research of South Africa) and UIRI	
Output: 0651 03 Industrial and technological Incubation	
<i>US\$ Bn:</i> 2.600	As part of the effort towards Uganda's socio-economic transformation. A direct method of increasing house hold incomes is the platform of the envisaged Business Incubator Center of Excellence which is intended to apply the principles of technology transfer and leapfrog some of the evolutionary steps of the business incubation process, an approach that has been rated 85% successful as a proven mechanism to nurture start up
Expanding Business Incubation portfolio. Currently UIRI is challenged by the overwhelming growing numbers expressing interest in a number of enterprise/ business creations	

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Additional Requirements for Funding and Outputs in 2016/17:	Justification of Requirement for Additional Outputs and Funding
	<i>enterprises.</i>
Output: 0651 77 Purchase of Specialised Machinery & Equipment <i>UShs Bn: 6.950</i> 1. Foundry Technology 2. Expansion of agro processing centers as catalyst for rural industrialization and commercialization of value added products 4. Augmentation and full operationalization of Millennium Science Initiative (MSI) project	<i>Government initiative for One Villiage One Product (OVOP) would be addressed on the assumption that Ministry of Finance allocates more funds to improving technology through acquisition of specialised machinery and equipment , development of technical skills through capacity building&training, business incubator programes to kick start primary industries a prerequisite for a manufacturing and an industrialised economy.</i>

This section discusses how the vote's plans will address and respond to the cross-cutting policy, issues of gender and equity; HIV/AIDS; and the Environment, and other budgetary issues such as Arrears and NTR..

(i) Cross-cutting Policy Issues

(i) Gender and Equity

(ii) HIV/AIDS

(iii) Environment

(ii) Payment Arrears

The table below shows all the payment arrears outstanding for the Vote:

(ii) Non Tax Revenue Collections

The table below shows Non-Tax Revenues that will be collected under the Vote:

Source of NTR	UShs Bn	2014/15 Actual	2015/16 Budget	2015/16 Actual by Sept	2016/17 Projected
Rent & rates – produced assets – from private entities			0.100		0.100
	Total:		0.100		0.100