African Centres of Excellence East and Southern Africa

Africa Center of Excellence in Sustainable Use of Insects as Food and Feeds



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

[ACE II proposal number: ESC 34]

Implementation Plan

2016-2020

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LIST OF ABBREVIATIONS

ACE Africa Centre of Excellence

CD The Centre Director

CUE Commission for University Education

DVC, RIO Deputy Vice Chancellor Research, Innovation and Outreach

EA East Africa

INSEFOODS Africa Centre of Excellence in Sustainable Use of Insects as Food and Feeds

IC Implementation Committee

ICIPE International Centre for Insect Physiology and Ecology

JOOUST Jaramogi Oginga Odinga University of Science and Technology

JKUAT Jomo Kenyatta University of Agriculture and Technology

MAMAH Mothers Against Malnutrition And Hunger

MoUs Memorandum of Understanding

MIS Management Information System

NMK National Museum of Kenya

PhD Doctor of Philosophy

PI Principal Investigator

SDGs Sustainable Development Goals

1. BRIEF NARRATIVE SUMMARY

Focus on motivation, objectives, methodology, results and partnerships. Must include a section on important changes made

Malnutrition and food insecurity remain a major challenge in sub-Saharan Africa due to limited access to proteins. Edible insects have been identified to be an inexpensive alternative source of animal protein for human and livestock due to their nutritional value and efficiency in food conversion.

Jaramogi Oginga Odinga University of Science and Technology (JOOUST) is a public chartered academic and research institution in Kenya and has been pioneering research in insect science and technology for food and feed in Western Kenya. The University working in collaboration with regional and international institutions has initiated rearing and value addition of insects for food and feed. However, the development of insect technology for food and feed has been hampered by limited capacity for training and research. In addition, the University has established Bachelors, Masters and Ph.D. programs in Food Security to address the Sustainable Development Goals (SDGs) number I and II with limited research and training facilities.

Through ACE II, the University in collaboration with local, regional and international partners proposes to establish the Africa Center of Excellence in Sustainable Use of Insects as Food and Feeds (INSEFOODS) with an overall objective to address challenges of sustainable food security using insects for food and feed. The specific objectives of INSEFOODS include: i) To build human resource and infrastructural capacity for research, training and technology development and transfer on insects as food and feed; ii) To build sustainable local, regional and international partnerships and networks for research, development and training on insects as food and feed; iii) To develop a biodiversity repository of insects for food and feed in the region; and iv) To develop insect technology incubation and skills transfer hub for teaching and research.

To address the listed objectives, the strategy is to have faculty guided graduate students in different disciplines to carry out research on identified topics for knowledge and information creation; put in place demonstration and development projects for teaching and research; and develop curricula at all levels of learning, from farmer schools to Ph.D. programs and postdoctoral studies. Students and staff will identify areas of research and operationalize further the objectives and the research questions to optimize knowledge creation for refined research and product development. Regional and International university partners will be involved in student supervision and product development and testing for benchmarking to provide high-quality training that will translate into high agricultural productivity. Student exchange programs will be implemented to enhance student learning by providing exposure to different settings and opportunity to interact with highly qualified academicians. Retooling seminars for faculty will be organized to provide opportunities for capacity enhancement in research methodologies, pedagogical methods, and group counselling. Field and case-based studies will be organized for students for increased exposure to industrial processes and techniques under the private sector supervision and faculty evaluation. The private sector and regional and national entrepreneurs will be partnered with to formulate and test specific consumer products, and package the products to meet global acceptable standards for targeted end users in the industry.

It is expected that INSEFOODS will contribute towards enhanced quality in teaching, learning, research, products and services in the Eastern and Southern Africa region. More specifically, the Centre's activities will result in: i) Strengthened Education Capacity Excellence through the

number of Ph.D. and Masters students trained, and the number of students who participate in short term trainings; ii) Strengthened Education Capacity & Development Impact through the number of student and staff internships with private sector, the number of sub-regional and internationally accredited education programs, the number of students employed by industry and by universities as faculty members, and the number of students who create/start their own businesses; iii) Strengthened Research Capacity Excellence through the number of internationally peer reviewed research publications in disciplines supported by the ACE Program; the number of new research collaboration in the region; the number of students employed by research organizations; and the number of patents, invention disclosures, trademarks and copyrights emanating from the ACE's activities; and iv) Strengthened Education and Research Capacity through increased financial sustainability and demonstration of value to students and partners through the amount of externally generated revenue by the ACE.

INSEFOODS will establish partnerships at local, regional and international levels, and with public, private and civil society organizations that will support and facilitate the ACE to conduct upstream and downstream research, teaching, training and outreach activities, and participate in the ACE's governance structures. The Principal Investigator for this proposed project has successfully partnered with several local, regional and international organizations and institutions in research on edible insects over the past several years. These partnerships will be continued in this project, as new partners will be identified and incorporated into the ACE's activities.

From their technical and site visit evaluations, the evaluators raised a number of weaknesses in the proposal. These were that: i) Government support for co-funding is not evident in the proposal; ii) the existing capacity of the institution to train will be a challenge especially in terms of the fact that modern scientific research equipment and resources are not yet available; iii) lack of social scientists in the proposed ACE; iv) missing regional (African) component or outreach; and v) that planned students number are too ambitious.

The proposed INSEFOODS will address these weaknesses as follows: i) JOOUST, a publicly (largely government) funded institution is committing and will continue to commit financial, physical and human resources to the establishment and management of INSEFOODS; ii) the ACE shall address the challenge of modern research equipment and resources through procurement of the equipment and resources in the context of the ACE's funding; iii) the project Implementation Team includes a consumer economist (who is the PI for the project), and two **Economists** including the Project Director. In addition, Anthropologist/Sociologist from JOOUST's School of Humanities and Social Sciences has been included into the Team. These social scientists will contribute to ACE's activities related to research, training, masters and doctoral student research supervision and socioeconomic impact assessments; already there is an Ph.D. student researching the acceptability of insect-based foods; iv) INSEFOODS will recruit/engage qualified teaching and research staff from the region and internationally for its research and training programs; in addition, Masters and Ph.D. students to be involved in the Centre's activities will be recruited from the African region; furthermore regional outreach activities will be achieved through current collaborative arrangements with Makerere University, MAMAH and ECOFARM in Uganda, and will be extended to partners in other countries in the African region; and v) the expected number of Ph.D. and Masters students to graduate from the ACE's activities over the five year period is 20 and 60 respectively. These numbers would be accommodated given the facilities and resources from the ACE's funding.

Thus by the end of the project period, expected outputs of the ACE are:

- Twenty (20) PhDs and sixty (60) MSc, of which about 65% will be national and 35% from the region. Overall, at least 40% of all fellowships will be females to ensure gender inclusivity.
- Eight (8) short courses relevant to the needs of the region developed.
- Four (4) capacity building workshops conducted (at least 3 in partner Universities).
- One (1) retooling workshop to build capacity of University teaching and administrative/finance staff.
- Ten (10) high level consultative workshops with industry/private actors on student internships held.
- Four (4) collaborative research projects for staff supported.
- Four (4) Community collaborative research activities.
- Two (2) international conferences held.
- Teaching and research facilities procured, installed and commissioned by the 3rd year of the project.
- ICT infrastructure of host enhanced.
- English language support for students from the region not proficient in English.
- E-learning platform for students from the region by the end of 2nd year
- At least seventy-five (75) publications published in peer-reviewed Journals by the end of the project period.
- At least five (5) incubations of innovations supported.
- One edible insects' repository hub established.
- One library modernized and equipped.
- One ultra-modern computer centre by the fourth year.
- One Africa Centre of Excellence facility established at Jaramogi Oginga Odinga University of Science and Technology.

2. OVERVIEW OF PLANNED OUTPUTS, ACTIVITIES AND COST FOR FIRST YEAR

Table 1: Overview of First Project Year

Code	Priority Rank	Results/Activity/Task	Budget Est	imates (US	S)Year 1			
	(1 highest, 5 lowest)	(Expected output)	ACE leader					
Action Plan 1		1.0. Strengthen education capacity (excellence) and development impact	367,720	113,680	481,400			
	1	1.1. Develop new relevant multidisciplinary MSc and PhD food security curricula and regular reviews	9,600	2,400	12,000			
	1	1.2.Benchmark and obtain accreditation for MSc and PhD food security curriculum	10,000	5,000	15,000			
	1	1.3. Rehabilitate and upgrade teaching and learning facilities	18,000	0	18,000			
	1	1.4. Set up a grants management scheme and allocate research funds	61,080	98,520	159,600			
	1	1.5. Strengthen ICT infrastructure for teaching and learning	159,000	0	159,000			
	1	1.6. Advertise and admit students into MSc and PhD programmes	5,440	1,360	6,800			
	1	1.7. Offer required taught courses to MSc and PhD students	15,000	0	15,000			

Code	Priority Rank	Results/Activity/Task	Budget Est	imates (US	S)Year 1
	(1 highest, 5 lowest)	(Expected output)	ACE leader	Partners	Total
	1	1.8. Initiate and implement regional student exchanges to broaden learning experience	7,200	4,800	12,000
	2	1.9. Develop and offer relevant short courses for special groups	6,400	1,600	8,000
	3	1.10. Develop content and convert for delivery by e-learning platform	0	0	0
	2	1.11. Expand the existing library resources including e-resources relevant to the ACE	7,6000	0	76,000
	3	1.12. Broaden students' knowledge and skills through internship at advanced research institutions and industries	0	0	0
	2	1.13. Provide appropriate tools for people with disabilities to access learning and research	0	0	0
	(1 highest, 5 lowest)	(Expected output)	ACE leader	Partners	Total
Action Plan 2		2.0. Strengthen research capacity (excellence)	126,900	50,100	177,000
	1	2.1. Scale up MSc and PhD research in key areas in insect science and food security	4,200	1,800	6,000
	1	2.2. Expand regional and international collaborations and joint research programmes	3,840	15,760	19,600
	1	2.3. Equip and rehabilitate research laboratories for upscaling insect rearing, processing and analysis	50,000	0	50,000
	2	2.4. Enhance faculty research capacity through staff development, exchange programmes and visits	13,520	10,080	23,600
	1	2.5. Recruit qualified technical and support staff	8,000	0	8,000
	2	2.6. Conduct training workshops and seminars to broaden students' learning experience	10,240	2,560	12,800
	2	2.7. Develop and sign MoUs with partner institutions	5,000	3,000	8,000
	2	2.8. Attract, retain and retool faculty in areas relevant to the ACE	16,000	0	16,000
	1 2	2.9. Publish in peer reviewed journals2.10. Support scientific conference	10,500	4,500	15,000
		presentations 2.11 Develop insect technology incubation	5,600	12,400	18,000
	(1 highest,	and skills transfer hub	0 ACE	0	0
Action	5 lowest)	(Expected output) 3.0. Attracting regional faculty and	leader	Partners	Total
Plan 3		students	116,400	11,600	12,8000
	1	3.1. Set up collaborative postgraduate programmes with other Institutions	6,400	3,600	10,000
	1	3.2. Set up structures for student and staff support	100,000	0	100,000
	1	3.3. Establish staff/student regional mentorship programme and regional working	6,000	4 000	10.000
	2	groups 3.4. Develop partnerships with industry, research organization for staff and equipment	6,000 4,000	4,000	8,000

Code	Priority Rank	Results/Activity/Task	Budget Est	imates (US	S)Year 1	
	(1 highest,		ACE			
	5 lowest)	(Expected output)	leader	Partners	Total	
		sharing				
	(1 highest,		ACE	.	m . 1	
	5 lowest)	(Expected output)	leader	Partners	Total	
Action		4.0 Plan for national, regional and international academic partners and				
Plan 4		collaborations	34,180	25,420	59,600	
1 1411 4		4.1. Inception meeting and workshops to form	34,100	25,420	57,000	
		strategic working groups for collaborative				
	1	teaching and research	10,000	17,200	27,200	
		4.2. Institutionalize faculty exchange				
	1	programmes	0	0	0	
		4.3. Establish and publish a high impact peer				
	1	reviewed journal in insects as food and feeds	0	0	0	
		4.4. Set up collaborative postgraduate,				
	1	postdoctoral studies and fellowship		0	Λ	
	1	programmes 4.5. Schedule a launching and inception	0	0	0	
	1	workshop with partners	19,180	8,220	27,400	
	1	4.6. Participation in two (2) joint regional	17,100	0,220	27,400	
	2	ACEII Meetings	5,000	0	5,000	
	(1 highest,		ACE		,	
	5 lowest)	(Expected output)	leader	Partners	Total	
Action Plan 5		5.0. Plan for management and governance	296,793	14,620	311,413	
1 1411 0		5.1. Incorporate Management Information	250,750	11,020	011,110	
		System (MIS) for implementing Centre's				
		activities including a Grant Management				
	1	System	2,000	0	2,000	
		5.2. Adopt best practices in Financial	1.5.000		4 = 000	
	1	Management and Procurement	15,000	0	15,000	
	1	5.3. Establish sound fiduciary practices	7,500	0	7,500	
	2	5.4. Procure and maintain vehicles	40,000	0	40,000	
	1	5.5. Centre operations	23,702	0	23,702	
		5.6. Centre staff				
	2		148,811	0	148,811	
		5.7. Put in place governance framework,				
		financial management, administrative,				
	1	procurement, monitoring and evaluation procedures and systems	50,00	0	50,00	
	1	5.8. Schedule and hold implementation team	50,00	0	30,00	
	1	meetings	19,180	5,220	24,400	
	3	5.9. Schedule and hold M&E meetings	25,000	7,000	32,000	
		5.10. Design, host and manage a custom	_ , = ,	.,	2=,000	
	2	website for the centre	5,000	0	5,000	
	2	5.11. Promote the Centre (marketing)	5,600			
	(1 highest,		ACE			
	5 lowest)	(Expected output)	leader	Partners	Total	
Action Plan 6		6.0 Sustainability	12,500	0	12,500	
		6.1. Generate revenue from internal and	22,000			
		external sources (student fees, government				
		subsidies, consultancies, income generating				
		activities from selling products and services				
	1	from the Centre)	4,500	0	4,500	

Code	Priority Rank	Results/Activity/Task	Budget Estimates (US\$)Year 1					
	(1 highest, 5 lowest)	(Expected output)	ACE leader	Partners	Total			
	3 lowest)	6.2. Support faculty to submit three major	leader	1 artifers	10141			
	1	grant applications	3,000	0	3,000			
		6.3. Support PhD and MSc students to apply for small grants from international agencies to support their their research, attendance and						
	1	presentations at meetings	5,000	0	5000			
					1,169,91			
		Grand total	954,493	215,420	3			

Table 2: Overview Distribution Among Partners (this table is a breakdown of the partner budget column from table 1, so the last column here in table 2 must match the second last column in table 1)

Code	Results/Activity/Task	ICIPE	NMK	JKUAT	Makerere	Chinhoyi	Wageningen	Copenhagen	Sanergy	Uga Ltd	Sigma Feeds	
	(Expected output)	(component total for Partners)	component total for Partners)	(componen t total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(componen t total for Partners)	(compone nt total for Partners)	(compone nt total for Partners)	Sub Totals
Action	1.0. Strengthen education capacity (excellence) and											
Plan 1	development impact	20,000	10,000	14,372	13,352	12,552	9,132	19,272	5,000	5,000	5,000	113,680
	1.1. Develop new relevant multidisciplinary MSc and PhD food security curricula and regular reviews			320	320	320	400	1040			,	2,400
	1.2.Benchmark and obtain accreditation for MSc and PhD food security											
	curriculum			500	1000	1000	500	2000				5,000
	1.3. Rehabilitate and upgrade teaching and learning facilities											0
	1.4. Set up a grants management scheme and allocate research funds	20000	10000	11520	10000	10000	7000	15000	5000	5000	5000	98,520
	1.5. Strengthen ICT infrastructure for teaching and learning	20000	10000	11320	10000	10000	7000	13000	3000	3000	3000	0
	1.6. Advertise and admit students into MSc and PhD programmes			272	272	272	272	272				1,360
	1.7. Offer required taught courses to MSc and PhD students											0
	1.8. Initiate and implement regional student exchanges to broaden learning experience			960	960	960	960	960				4,800
	1.9. Develop and offer relevant short courses for special groups			800	800	700	900	700				1,600

G 1	D 1/ / / / / / / / / / / / I										Sigma	
Code	Results/Activity/Task (Expected output)	(component total for Partners)	NMK component total for Partners)	(componen t total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(componen t total for Partners)	Uga Ltd (compone nt total for Partners)	Feeds (compone nt total for Partners)	Sub Totals
	1.10. Develop content and convert for delivery by elearning platform											0
	1.11. Expand the existing library resources including e-resources relevant to the ACE											0
	1.12. Broaden students' knowledge and skills through internship at advanced research institutions and industries											0
	1.13. Provide appropriate tools for people with disabilities to access learning and research											0
Action Plan 2	2.0. Strengthen research capacity (excellence)	5,752	4,176	5,526	9,466	9,466	4,712	4,712	2,310	1,990	1,990	50,100
	2.1. Scale up MSc and PhD research in key areas in insect science and food security			600	600	600					,	1,800
	2.2. Expand regional and international collaborations and joint research programmes	1,576			3,940	3,940	3,152	3,152				15,760
	2.3. Equip and rehabilitate research laboratories for upscaling insect rearing, processing and analysis						, -					0
	2.4. Enhance faculty research capacity through staff development, exchange programmes and visits	2,016	2,016	2,016	2,016	2,016						10,080

Code	Results/Activity/Task	ICIPE	NMK	JKUAT	Makerere	Chinhoyi	Wageningen	Copenhagen	Sanergy	Uga Ltd	Sigma Feeds	
	(Expected output)	(component total for Partners)	component total for Partners)	(componen t total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(componen t total for Partners)	(compone nt total for Partners)	(compone nt total for Partners)	Sub Totals
	2.5. Recruit qualified											0
	technical and support staff 2.6. Conduct training											0
	workshops and seminars to											
	broaden students' learning											
	experience	320	320	320	320	320	320	320	320			2,560
	2.7. Develop and sign MoUs											
	with partner institutions	600	600	600	600	600						3,000
	2.8. Attract, retain and											
	retool faculty in areas relevant to the ACE											•
	2.9. Publish in peer											0
	reviewed journals			750	750	750			750	750	750	4,500
	2.10. Support scientific			730	750	730			750	750	750	1,500
	conference presentations	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	12,400
	2.11 Develop insect											
	technology incubation and											
A 10	skills transfer hub											0
Action Plan 3	3.0. Attracting regional faculty and students	1,600	1,600	2,800	2,800	2,800						11,600
1 Iaii 3	3.1. Set up collaborative	1,000	1,000	2,000	2,800	2,800						11,000
	postgraduate programmes											
	with other Institutions			1,200	1,200	1,200						3,600
	3.2. Set up structures for											ŕ
	student and staff support											0
	3.3. Establish staff/student											
	regional mentorship											
	programme and regional working groups	800	800	800	800	800						4,000
	3.4. Develop partnerships	800	800	800	800	800						4,000
	with industry, research											
	organization for staff and											
	equipment sharing	800	800	800	800	800						4,000
Action	4.0 Plan for national,											
Plan 4	regional and international	5,084	5,084	5,084	5,084	5,084						25,420

Code	Results/Activity/Task	ICIPE	NMK	JKUAT	Makerere	Chinhovi	Wageningen	Copenhagen	Sanergy	Uga Ltd	Sigma Feeds	
	(Expected output)	(component total for Partners)	component total for Partners)	(componen t total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(componen t total for Partners)	(compone nt total for Partners)	(compone nt total for Partners)	Sub Totals
	academic partners and collaborations											
	4.1. Inception meeting and workshops to form strategic working groups for collaborative teaching and	2.110		2.110								1-00
	research 4.2. Institutionalize faculty exchange programmes	3,440	3,440	3,440	3,440	3,440						17,200
	4.3. Establish and publish a high impact peer reviewed journal in insects as food and feeds											0
	4.4. Set up collaborative postgraduate, postdoctoral studies and fellowship programmes											0
	4.5. Schedule a launching and inception workshop with partners	1644	1644	1644	1644	1644						8,220
	4.6. Participation in two (2) joint regional ACEII Meetings											0
Action Plan 5	5.0. Plan for management and governance											14,620
	5.1. Incorporate Management Information System (MIS) for implementing Centre's activities including a Grant Management System											0
	5.2. Adopt best practices in Financial Management and Procurement											0
	5.3. Establish sound											0

Code	Results/Activity/Task	ICIPE	NMK	JKUAT	Makerere	Chinhoyi	Wageningen	Copenhagen	Sanergy	Uga Ltd	Sigma Feeds	
	(Expected output)	(component total for Partners)	component total for Partners)	(componen t total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(component total for Partners)	(componen t total for Partners)	(compone nt total for Partners)	(compone nt total for Partners)	Sub Totals
	fiduciary practices											
	5.4. Procure and maintain vehicles											0
	5.5. Centre operations											0
	5.6. Centre staff											0
	5.7. Put in place governance framework, financial management, administrative, procurement, monitoring and evaluation procedures											
	and systems											0
	5.8. Schedule and hold implementation team meetings	522	522	522	522	522	522	522	522	522	522	5,220
	5.9. Schedule and hold M&E meetings	700	700	700	700	700	700	700	700	700	700	7,000
	5.10. Design, host and manage a custom website for the centre											0
	5.11. Promote the Centre (marketing)	240	240	240	240	240	240	240	240	240	240	2,400
Action Plan 6	6.0 Sustainability											0
	6.1. Generate revenue from internal and external sources (student fees, government subsidies, consultancies, income generating activities from selling products and services from the Centre) 6.2. Support faculty to											0
	submit three major grant											0

Code	Results/Activity/Task (Expected output)	ICIPE (component total for Partners)	NMK component total for Partners)	JKUAT (componen t total for Partners)	Makerere (component total for Partners)	Chinhoyi (component total for Partners)	Wageningen (component total for Partners)	Copenhagen (component total for Partners)	Sanergy (componen t total for Partners)	Uga Ltd (compone nt total for Partners)	Sigma Feeds (compone nt total for Partners)	Sub Totals
	applications	Turners)	Turners	Turners)	Turnersy	Turners	Turners)	Turnersy	Turners	Turnersy	Turnersy	
	6.3. Support PhD and MSc students to apply for small grants from international agencies to support their their research, attendance and presentations at meetings											0
	Grand total	33,898	22,322	29,244	32,164	31,364	15,306	25,446	8,772	8,452	8,452	215,420

.

3. TIMING OF PLANNED ACTIVITIES FOR ENTIRE PROJECT PERIOD (Gantt chart)

(Please use project year 1, 2, 3 and month 1, 2, 3 and not specific dates like 2016 September, as we cannot predict the exact start date for the project. Please indicate as a footnote when in the challenger year MSc students start, and PhD students if they have fixed starting dates).

Table 3. Work Plan for the Five Year Project Period

	Activity	Timeline																
		Y	YEA	R 1			AR			YEAR 3			YEAR 4		4	YF	EAR	5
1	1.0. Strengthen education capacity (excellence) and development impact	1	2	3	4 1	. 2	2 3	4	1	2	3	4	1 2	2 3	4	1 2	2 3	4
	1.1 Develop new relevant multidisciplinary MSc and PhD food security curricula and regular reviews										Ш							
	1.2 Benchmark and obtain accreditation for MSc and PhD food security curriculum										Ш					\bot		
	1.3 Rehabilitate and upgrade teaching and learning facilities																	
	1.4 Set up a grants management scheme and allocate research funds						\perp		Ш	Ш	Ш		\perp	\perp		\bot		Ш
	1.5 Strengthen ICT infrastructure for teaching and learning																	
	1.6 Advertise and admit students into MSc and PhD programmes									Ш								
	1.7 Offer required taught courses to MSc and PhD students																	
	1.8 Initiate and implement regional students exchanges to broaden learning experience								ot		Ш	_	L	╧		\bot		
	1.9 Develop relevant short courses for special groups																	
	1.10 Develop content and convert for delivery by e-learning platform																	
	1.11 Expand the existing library resources including e-resources relevant to the ACE									Ш	Ш		\bot			\perp		
	1.12 Broaden students' knowledge and skills through internship at advanced research institutions and industries					1								4		4	4	
	1.13 Provide appropriate tools for people with disabilities to access learning and research		2	2								_	1 1		\perp		2 2	
2	2.0. Strengthen research capacity (excellence)	1	2	3	4]	. 2	3	4	1		3	4	1 2	3	4	1 4	2 3	4
	2.1 Scale up MSc and PhD research in key areas in insect science and food security					1												
	2.2 Expand regional and international collaborations and joint research programmes																	
	2.3 Equip and rehabilitate research laboratories for upscaling insect rearing, processing and analysis																	
	2.4 Enhance faculty research capacity through staff development, exchange programmes and visits																	
	2.5 Recruit qualified technical and support staff										Ш							
	2.6 Conduct training workshops and seminars to broaden students' learning experience																	
	2.7 Develop and sign MoUs with partner institutions										Ш							
	2.8 Attract, retain and retool faculty in areas relevant to the ACE																	
	2.9 Publish in peer reviewed journals																	
	2.10Support scientific conference presentations																	
	2.11Develop insect technology incubation and skills transfer hub																	
3	3.0. Attracting regional faculty and students	1	2	3	4 1	2	3	4	1	2	3	4	1 2	3	4	1 2	2 3	4

	3.1 Set up collaborative postgraduate programmes with other Institutions														\Box	
	3.2 Set up structures for student and staff support															
	3.3 Establish staff/student regional mentorship programme and regional working groups															
	3.4 Develop partnerships with industry, research organization for staff and equipment sharing															
4	4.0 Plan for national, regional and international academic partners and collaborations	1	2	3 4	1	2	3	4 1	. 2	3	4 1	. 2	3	4	1 2	3 4
	4.1 Inception meeting and workshops to form strategic working groups for collaborative teaching and research															
	4.2 Institutionalize faculty exchange programmes															
	4.3 Establish and publish a high impact peer reviewed journal in insects as food and feeds															
	4.4 Set up collaborative postgraduate, postdoctoral studies and fellowship programmes															
	4.5 Schedule a launching and inception workshop with partners															
	4.6 Participation in two joint regional ACE II Meetings															
5	5.0. Plan for management and governance	1	2	3 4	1	2	3	4 1	. 2	3	4 1	. 2	3	4	1 2	3 4
	5.1 Incorporate Management Information System (MIS) for implementing Centre's activities including a Grant Management System															
	5.2 Adopt best practices in Financial Management and Procurement															
	5.3 Establish sound fiduciary practices															
	5.4 Procure and maintain vehicles															
	5.5 Centre operations															
	5.6 Centre staff															
	5.7 Put in place governance framework, financial management, administrative, procurement, monitoring and evaluation procedures and systems															
	5.8 Schedule and hold implementation team meetings															
	5.9 Schedule and hold M&E												Ш			
	5.10 Design, host and manage a custom website for the centre															
	5.11 Promote the Centre (marketing)															
6		1	2	3 4	1	2	3	4 1	2	3	4 1	. 2	3	4 1	1 2	3 4
	6.1 Generate revenue from internal and external sources (student fees, government subsidies, consultancies, income generating activities from selling products and services from the Centre)															
	6.2 Support faculty to submit three major grant applications															
	6.3 Support PhD and MSc students to apply for small student grants from international agencies to support their research, attendance & presentations at meetings															

4. IMPLEMENATION ARRANGEMENTS

4.1 Guiding rules and regulations

(Briefly describe the rules that govern the ACE and its partnerships, including safeguarding against fraud/corruption, just referring to rules and regulation is not sufficient).

Jaramogi Oginga Odinga University of Science and Technology (JOOUST), is a precursor of Bondo University College which was founded in 2009. JOOUST was established through the Award of Charter on 13thFebruary 2013 by the Universities Act No. 42 of 2012. The University is governed by the JOOUST Statutes, 2013. The University operates under the general regulations of Kenya's Commission for University Education (CUE). The provisions of the Universities Act No. 42 of 2012 and the JOOUST Statutes empower the University to award degrees, diplomas and certificates. It also empowers the University to withdraw such awards, if it is ascertained that the award was obtained by fraud or tainted by any act that the University believes undermines its integrity. The Statutes also empower the University to establish centres and campuses. INSEFOODS, as a semi-autonomous Centre, is also regulated by the various JOOUST policies namely terms and conditions of service for academic staff, Criteria for Appointment and Promotion, ICT policy, financial management Policy, Public Procurement and Asset Disposal Act, 2005. JOOUST students are subject to the rules and regulations governing the Conduct and discipline of students as spelt out in the Handbook. The Office of the University's Legal Officer reviews all the Centre's contracts and MoUs with partners to ensure that they are within the legal framework of the University and consistent with national and international laws. The Vice Chancellor is signatory to all agreements. These measures safeguard the Centre against fraud and corruption. In addition the core values of the University which shall as well be reflected in the centre include fairness, professionalism, transparency and accountability, integrity, meritocracy and gender equity. In line with these the centre shall observe the following:

Undertake Science that is Ethical

- Promote participatory and consultative management including adoption of good governance concepts and practices
- Countable and transparent in using funding resources, partnerships
- Being open: adoption of good governance concepts and practices e.g. share resources, make as much knowledge available as possible, give-back policy, transparent (private-public partnership); web-sharing
- Visibility: Community presence as an institution, being relevant, accessible. Includes
 issues like good neighbor policy, offer classes of extra teaching in schools, open
 University, socially responsible and responsive. Enhance the social responsibility
 involvement of staff and students through community outreach programmes
- Experiential training and research: real-time training and applied research
- Multi- and inter-disciplinary teaching and research activities
- Inter-sectorial and multi-level teaching and research activities
- Equity: mainstreaming of gender and disability- decisions will be based on targeting gender (faculty and students), in terms of research distribution (stream-based resource allocation), represented voice on the table to make decisions

Build sustainability in all activities (invest in people and projects)

4.2 Governance structures

(Briefly describe ACE governance structures both within the host university and among the partner institutions, at faculty/centre level and university/institution level. Which partner is a part of the Board/Steering Committee, how do they participate in meeting, who covers the cost, etc.)

INSEFOODS is a semi-autonomous Centre in Jaramogi Oginga Odinga University of Science and Technology. The Centre is headed by a Centre Director who is the academic and administrative head. The Centre Director (CD) reports administratively to the Vice Chancellor in consultations with the Deputy Vice Chancellor Research, Innovation and Outreach (DVC, RIO).

The Centre Director is responsible for the day-today management of Centre activities. The Centre Director is assisted by a PI who also deputizes the Centre Director. A multi-disciplinary team of subject area specialists from various schools in the University form the Centre technical committee for consultations in subject areas as necessary. The specialists oversea ACE student research and learning activities, and provide student mentoring.

There is a Centre Advisory Board which provides an oversight function to the Centre and consists of representatives from key local, regional and international partner institutions. The Board meets once a year during one of the two regional meetings.

A Centre Management Committee whose membership includes the CD, DCD/PI, and the Programme Manager.

INSEFOODS Centre Organogram

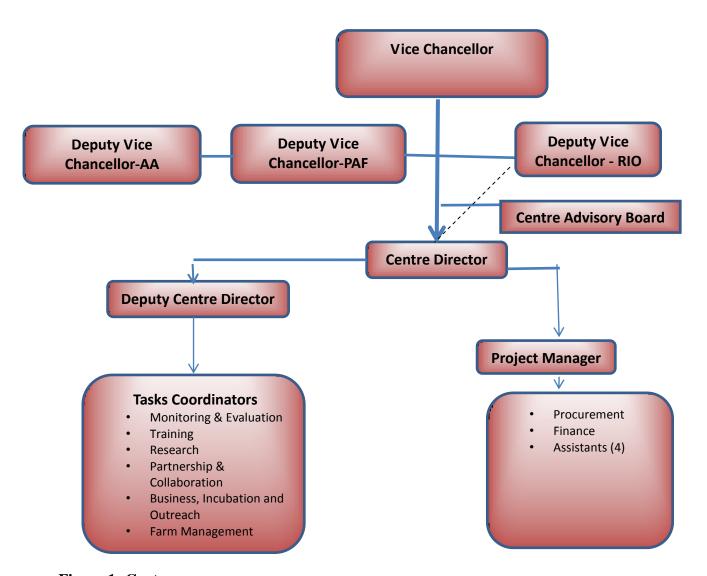


Figure 1: Centre organogram

4.3 Project team Roles and responsibilities

(Brief Terms of Reference (TOR) for the most important ACE team member and project financed support staff* (maximum 5-7 people)

Table 4: Overview of Core Project Team:

Name	Discipline	Project title/Role	Responsibility
Prof Adrian	Agricultural	Centre Director	Head of the Centre responsible
Mukhebi	Economics		for day to day management of the
			Centre and coordination of the
			programs on full time basis
Prof Monica	Agriculture and	Principal	-The Principal Investigator
Ayieko	Consumer	Investigator/Deputy	responsible for research, training
	Economics	Centre Director	and learning activities.
			-Assist the Centre Director in the
			management of center activities
To be appointed		Coordinator for research	-Coordinate research activities of
from amongst			the Centre and ensure relevance
JOOUST staff			to the Centre objectives
			-Responsible for Conferences,
			workshops, seminars
			-Oversee students' research
			activities
			-Answerable to the PI
To be appointed		Coordinator for training	-Oversee curriculum
from among			development, accreditations,
JOOUST staff			Scholarships
			-Development and conducting
			short courses
			-Liaises with relevant Deans for
			students' academic and welfare
			activities
T. 1		0 1 6 1 1	-Answerable to the PI
To be appointed		Coordinator for linkage	-Initiate and coordinate broad-
from among		and outreach	based linkages and partnership
JOOUST staff			-Identify and build synergies with
			relevant local, regional and global
			organizations Managa avalance programmes
			-Manage exchange programmes.-Answerable to the PI
To be appointed		Coordinator for	-Coordinate business and
To be appointed from among		innovations and business	technology incubation, transfer
JOOUST staff		incubation	and commercialization of the
JOOGSI Siajj		medodion	centre products
			-Answerable to the PI
To be appointed		Coordinator/ Focal point	-Responsible for Centre M&E
from among		for monitoring and	activities and reporting
JOOUST staff		evaluation	-Answerable to the PI

Table 5: Centre Support Staff Positions and Roles

Position	Roles
	General administration and day to day management of the Centre
Project Manager	Answerable to the Director and Deputy Director/ PI
	Perform any other duties as my be assigned from time to time by the

Position	Roles							
	Director, Deputy Director/ PI							
	Day to day running of project business in the field							
	Reporting to the PI and the Director							
Finance	 Management of funds within the approved budget. 							
	Responsible for all financial matters in the Centre							
	Answerable to the Director and the Deputy Director/ PI							
	Shall be supervised by the University Finance Officer							
Procurement	 Procurement of goods and services in accordance with approved 							
	procurement procedures.							
	 Responsible for all procurement and stores matters in the Centre 							
	Answerable to the Director and the Deputy Director/ PI							
	Shall be supervised by the University's Procurement Officer							
Insect Farm Manager	Responsible for Centre insects production and management of							
	the various demonstration units on and off campus							
	 Liaise with the relevant project coordinators for day to day 							
	project business on insects production and processing							
	Answerable to PI and the Centre Director							
Project Assistants (4)	Answerable to the Project manager							
 Monitoring 	 Perform duties as may be assigned according to their areas of 							
 Managing ICT 	specialities							
 Secretarial 								
 Driving 								

4.4 Incentive structures

(Briefly describe the incentive structures for involved staff at lead and partner institutions (faculty, administration, management) as well as towards involvement of external stakeholders, e.g. private sector). Please be aware that the World Bank supported project does not support salary topping up, sitting allowances and the like.

Table 6: Incentive System

Project title/Role	Discipline	Motivating factors	Incentive required/offered
Director	Agricultural Economics	Opportunity for research, recognition, publications, networking	Research funds and facilities, running high quality post graduate programmes
PI	Agriculture and Consumer Economics	Opportunity for research, recognition, publications and networking	Research funds and facilities, running high quality post graduate programmes
Coordinator for research	Food Science and Technology	Opportunity for growth, research, publications and networking	Training funds, exchange programme, running high quality post graduate programmes, facilities for research
Coordinator for training	Soil Science/Agronomy	Opportunity for research, growth, publications and networking	Training funds, exchange, running high quality post graduate programmes, facilities for research

Project title/Role	Discipline	Motivating factors	Incentive required/offered
Coordinator for	Horticulture and	Opportunity for	Training funds,
linkage and outreach	Extension	research, growth	exchange, running
		publications and	high quality post
		networking	graduate programmes,
			facilities for research
Coordinator for	Ecology and	Opportunity for	Funds for retooling,
innovations and	biodiversity	research, publications	exchange, running
business incubation		and networking	high quality post
			graduate programmes
			facilities for research
Coordinator for	Environmental	Opportunity for growth,	Training funds,
monitoring and	(Sustainable	use M&E skills, do	retooling, exchange
evaluation	Development) Planning	research, publish and	and facilities for
	and Management	network	research
Project manager		Attractive TORs	Attractive
	Project management		remunerations, funds
	skills		for retooling
	Financial management	Attractive TORs	Attractive
Finance Assistant	and accounting skill		remunerations, funds
			for retooling
	Skills in procurement	Attractive TORs	Funds for retraining
Procurement	and supply chain		Attractive
Assistant	management		remunerations,
	Computer software and	Attractive TORs	Retraining funds,
ICT Assistant	hardware skills		Attractive
			remunerations,
Secretary	Office management	Attractive TORs	Attractive
	skills		remunerations, funds
			for retooling
Driver	Driving and auto-	Attractive TORs	Attractive
	mechanic skills		remunerations,

4.5 Environment safeguards

The Africa Centre of Excellence in Sustainable Use of Insects as Food and Feeds (INSEFOODs) project is low-risk with Environmental Impacts expected to be minimal. The approved safeguard report (environmental and social management plan (EMP) is provided in Annex I and is also available in the University website.

5. DISBURSEMENT LINKED INDICATORS AND PERFORMANCE MONITORING

Table 7: Overview of Disbursement Linked Indicators (DLI) and Disbursement Linked Results (DLR) and Allocated Funds

	Table 7: Overview of Disbursement Linked Indicators (DLI) and Disbursement Linked Results (DLR) and Allocated Funds										
Disbursement Linked Indicators	Action to be Completed	Definition	Disbursement Amounts ¹	IP Result/Activity/Task							
				contributing directly							
(Can trigger maximum 6 million			(expressed in USD								
USD equivalent)			equivalent)								
DLI #1: Institutional	DLR#1.1: Completion of	Disbursed when all conditions for effectiveness outlined	DLR#1.1:	1.0 Set up institutional							
readiness	Effectiveness Conditions	in the legal agreements signed between the ACE hosting	600,000	framework for							
readilless	Effectiveness conditions	government and the World Ban	000,000	commencement of the							
Total amount		government and the world ban		ACE (1.1)							
1,100,000	DLR#1.2: Development of the	Disbursed when detailed implementation plan of ACE is	DLR#1.2:	ACE (1.1)							
(expressed in USD	Project Implementation Plan	approved by the ministry in charge of higher education	500,000								
equivalent)	Troject imprementation Fran	as part of the Performance Agreement.	300,000								
DLI #2: Excellence	DLR# 2.1 ² : Timely annual	Disbursement based on the achievement of at least 50%	DLR#2.1:	All							
in education and	implementation of the plans	and scalable up to 85% of implementation targets in any	500,000	All							
research capacity and	implementation of the plans	given year. Achievement rates beyond 85% in any given	(100,000 per								
development impact		year triggers a 100% disbursement of that year	year)								
de veropment impact		year triggers a 100% disoursement of that year	year)								
Total amount	DLR #2.2: Newly enrolled	Short-Term Courses: Disbursement occurs when any	DLR#2.2:	2.0							
4,300,000	students in the ACE of which at	course leading to qualification (certificate/diploma	1,200,000								
(expressed in USD	least 20% must be regional	/degree) counts as a short-term course:	,,								
equivalent)	(African) students.	400 per male national student									
		500 per female national student									
		800 per male regional student									
		1,000 per female regional student.									
		Master's: Disbursement occurs when Master's students									
		have successfully completed at least one semester:									
		2,500 per male national student									
		3,000 per female national student									
		4,500 per male regional student									

¹ This amount is the capped disbursement amount per DLR for the project period of 5 years.

² If an ACE achieves 50% of this DLR in a given year, it will receive 50% of the allocation US\$100,000 for this DLR in that year, i.e., US\$50,000. If an ACE achieves 85% of this DLR in a given year, it will receive 85% of the allocation US\$100,000 for this DLR in that year, i.e., US\$85,000. If an ACE achieves beyond 85% of this DLR in a given year, it will receive 100% of the allocation US\$100,000 for this DLR in that year, i.e., US\$100,000.

Disbursement Linked Indicators (Can trigger maximum 6 million LISD equivalent)	Action to be Completed	Disbursement Amounts ¹ (expressed in USD	IP Result/Activity/Task contributing directly		
USD equivalent)		5,500 per female regional student.	equivalent)		
		PhD: Disbursement occurs when PhD students enroll: 12,000 per male national student 15,000 per female national student 25,000 per male regional student 30,000 per female regional student.			
		Disbursement for academic accomplishment will occur upon the student's successful completion of a Master's program or the approval of a student's PhD research proposal. The amount triggered will be half of the above indicated in each category, totalling for not more than 300,000.			
	DLR#2.3: Accreditation of quality of education programs	Disbursement occurs when a Master or PhD program is accredited by international or regional or national body (satisfactory to IUCEA and the World Bank): 300,000 per program internationally accredited 150,000 per program regionally accredited 75,000 per program nationally accredited 75,000 per program for self-evaluation (satisfactory executed according to internationally recognized standard). Self-evaluation and national accreditation, totalling for not more than 300,000.	DLR# 2.3: 600,000		
	DLR#2.4: Partnerships for collaboration in applied research and training	Disbursement occurs when MoUs are signed and accompanied by signed proposals that outline at least a two-year collaboration and partnership work-program: 30,000 per MoU with public institutions/civil society 40,000 per MoU with private sector/ industry In order to access the disbursement under this DLR minimum 1 eligible MoU with private sector must be	DLR#2.4: 200,000	3.0	

Disbursement Linked Indicators (Can trigger maximum 6 million USD equivalent)	Action to be Completed	Definition	Disbursement Amounts¹ (expressed in USD equivalent)	IP Result/Activity/Task contributing directly
		approved. All MoU work programs must be satisfactory to IUCEA/World Bank.		
	DLR#2.5: Peer-reviewed journal papers or peer-reviewed conference papers prepared collaboratively with regional or international co-authors	Disbursement occurs when a paper is accepted by a peer-review journal or is an accepted peer-reviewed conference paper: 30,000 per paper accepted by a peer-reviewed journal with regional author (s) 25,000 per paper accepted by a peer-reviewed journal with international author (s) 25,000 per accepted peer-reviewed conference paper with regional author (s) 20,000 per accepted peer-reviewed conference paper with international author (s)	DLR#2.5: 300,000	7.3
	DLR#2.6: Faculty and PhD student exchanges to promote regional research and teaching collaborations	This DLR is awarded to the ACE when it hosts faculty/PhD students from other institutions or when it sends its faculty/PhD students to other institutions locally, in the region or internationally for a "period" of minimum two weeks (for teaching/research collaboration): 5,000 per "period" within the country 10,000 per "period" outside the country but within the region 8,000 per "period" for international, outside the region	DLR#2.6: 500,000	3.0
	DLR#2.7: External revenue generation	Externally generated revenue deposited into the ACE's account from tuition fees, other student fees, sale of consultancies, joint research, fund raising and donations, or other external sources: US\$1 per externally generated US\$1 from national sources, and US\$2 per externally generated US\$1 from regional and international sources	DLR#2.7: 900,000	2.0
	DLR#2.8: Institution	The DLR will be disbursed if the ACE hosting	DLR#2.8:	2.0

Disbursement Linked Indicators	Action to be Completed	Definition	Disbursement Amounts ¹	IP Result/Activity/Task contributing directly
(Can trigger			(expressed in	contributing directly
maximum 6 million			USD	
USD equivalent)			equivalent)	
	participating in benchmarking exercise	university participate in the Partnership of Applied Sciences, Engineering and Technology (PASET) benchmarking exercise	100,000	
DLI#3: Timely,	DLR#3.1: Timely Withdrawal		DLR#3.1:	
transparent and	Applications supported by		75,000 (15,000	
institutionally	interim unaudited financial		per year)	
reviewed Financial	reports for each ACE			
Management	DLR#3.2: Functioning Audit		DLR#3.2:	
	Committee		75,000 (15,000	
Total amount 300,000	under each Eastern and		per year)	
(expressed in USD	Southern African Higher			
equivalent)	Education Institution			
	DLR#3.3: Functioning internal		DLR#3.3:	
	audit unit for each Eastern and		75,000 (15,000	
	Southern African Higher		per year)	
	Education Institution			
	DLR#3.4: Transparency of		DLR#3.4:	
	financial management (audit		75,000 (15,000	
	reports, interim unaudited		per year)	
	financial reports, budgets and			
	Annual Work Programs are all			
	web accessible)			
DLI#4: Timely and	DLR# 4.1 Timely procurement		DLR#4.1:	
audited Procurement	audit report for each ACE		150,000 (30,000	
			per year)	
Total amount 300,000	DLR#4.2: Timely and		DLR#4.2:	
(expressed in USD	satisfactory procurement		150,000 (30,000	
equivalent)	progress report for each ACE		per year)	

Note:

- Any enrolment that occurs after 1st August, 2016 is counted towards the DLIs in the first year.
- A regional student is interpreted as a student from Africa.

- Total disbursement is limited to the overall amount of financing for each ACE, which will be confirmed after negotiations.
- DLI amounts will be proportionately allocated based on the total financing for that ACE (18 percent for DLI#1, 72 percent for DLI #2, 5 percent each for DLI #3 and #4)
- During implementation each ACE will have flexibility to achieve education and research excellence through completing different combinations of the education and research results indicated in DLRs #2.2 2.7. Therefore, the amounts allocated to each DLR#2.2 2.7 can be adjusted downwards and upwards. But, no more than 50 percent of the original amount capped for each DLR#2.2 2.7 can be re-allowed. The financing allocated to DLR# 2.1 and DLR# 2.8 is not adjustable and remains fixed. All adjustments to the amount of financing per DLI and DLR, including to DLR#2.2 2.7, will have to be requested by the ACE, and approved by the National Steering Committee and the World Bank.

5.1 INSEFOODS Results Framework and Monitoring

<u>Table 8. Project Development Objective (PDO):</u> The Project Development Objectives (PDO) for the proposed ACE II is to strengthen selected Eastern and Southern African higher education institutions to deliver quality post-graduate education and build collaborative research capacity in the regional priority areas.

PDO Level Results	Unit of	Baseline		Tar	get Valu	es		Frequency	Data Source/	Responsibility for Data	Definition
Indicators	Measure	Daseille	YR 1	YR 2	YR3	YR 4	YR5	rrequency	Methodology	Collection	Definition
1. No. of new non-national students enrolled in priority areas: (i) Master's [30% of which are female] and (ii) PhD programs [30% of which are females]	No.	Masters=0 PhD=0	1	3	2	3	3	Annual MS=4 PhD=2	ACE Progress Reports	ACE and RFU	This indicator measures the number of African students who are not from the country hosting the particular ACE and are enrolled in Master's and/or PhD courses (for at least one semester)
2. No. of new students (national and regional) enrolled in priority areas: (i) Master's [30% of which are female] and (ii) PhD programs [30% of which are females]	No.	Masters=1 PhD=2	3	3	15	15 5	15 5	Annual MS=12 PhD=4	ACE Progress Reports	ACE and RFU	This indicator measures the total number of students (national and regional) enrolled in Master's and PhD programs
3. No. of collaborative research initiatives launched by the ACE	No.	3	2	3	4	4	5	Annual 4	ACE Progress Reports	ACE and RFU	This indicator measures the number of collaborative research initiatives (MoU, proposals, working papers, conference presentations) launched by the ACE
No. of internationally accredited education programs	No.	0	1	2	3	4	4	Annual 3	ACE Progress Reports	ACE and RFU	This indicator measures quality of program and counts the number of nationally/regionally accredited programs by a body satisfactory to Bank.
Intermediate Results											
1. No of faculty trained in an area relevant to the ACE-Program or organized through the ACEs [30% of which are females]	No.	1	4	5	8	10	10	Annual 7	ACE Progress Reports	ACE and RFU	This indicator measures the number of faculty who are trained in ACE relevant program by the ACE (includes faculty from partner institutions)
No of newly established or revised curricula (meeting labor market)	No.	0	1	2	2	3	3	Annual 3	ACE Progress Reports	ACE and RFU	The curricula will have to be approved by an appropriate institutional body. To ensure the

PDO Level Results	Unit of	Baseline	Target Values					Frequency	Data Source/	Responsibility for Data	Definition	
Indicators	Measure	Duscinic	YR 1	YR 2	YR3	YR 4	YR5	Trequency	Methodology	Collection	Deminion	
skills)											curricula meets labor market needs, a note from external reviewers (from industry/academia) must be included.	
3. Amount of externally generated revenue by the ACEs	USD	0	0	20,00	50,00	150,0 00	200,0	Annual 84,000	ACE Progress Report	ACE and RFU	This amount includes revenue of the ACE from tuition fees, student fees, consultancies, research, fundraising and/or other sources. This does not include government (or foreign/donor) funds.	
4. Increase in internationally recognized research publications in disciplines supported by the ACE Program (in %) with regional coauthors	No.	3	5	10	15	20	25	Annual 15	Data source is International bibliometrica I databases, such as ISI Thomson Reuters and/or Scopus		This indicator records the increase in the number of research publications produced by the ACEs with regional coauthors.	
5. No of partnership agreements including a 3-5 year cooperation implementation plan signed, by leaders of ACEs and partner institutions (including private sectors)	No.	2	3	3	4	4	4	Annual 4	ACE Progress Reports	ACE and RFU	Partnership agreements follow the guidelines (to be) outlined in the Project Operational Manual and are signed by academic leaders from ACE and partner institutions.	

For ease of reference, a simplified chart of annual student movements (recruitments status) will be posted on a chart at the Centre office

6. DETAILED BUDGET

Table 9: Project Budget Year 1 – 5 (with split between JOOUST and consortium partners)

Expenditure Category	Estimated Cost in (US\$)								
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total	% of total		
A: Budget by Activity Plan									
Action Plan 1: Strengthen education									
capacity (excellence) and development	401 400	401 400	401 400	401 400	401 400	2 407 000	40.70		
impact Action Plan 2: Strengthen research	481,400	481,400	481,400	481,400	481,400	2,407,000	40.12		
capacity (excellence)	177,000	227,587	227,587	227,587	227,587	1,087,348	18.12		
Action Plan 3: Attracting regional faculty	177,000	221,361	221,361	221,361	221,361	1,067,346	10.12		
and students	128,000	128,000	128,000	128,000	128,000	640,000	10.67		
Action Plan 4: Plan for national, regional	,		,	,	ĺ	ŕ			
and international academic partners and									
collaborations	59,600	20,000	19,000	19,000	19,000	136,600	2.28		
Action Plan 5: Plan for management &	211 112				211 200				
governance	311,413	311,413	311,413	311,413	311,300	1,556,952	25.95		
Action Plan 6: Sustainability	12,500	39,900	39,900	39,900	39,900	172,100	2.87		
TOTALS	1,169,913	1,208,300	1,207,300	1,207,300	1,207,187	6,000,000	100		
B: Budget by Partners									
JOOUST	954,493	1,010,604	1,009,604	1,009,604	1,009,491	4,993,796	83.23		
ICIPE	33,898	30,400	30,400	30,400	30,400	155,498	15.45		
NMK	22,322	19,160	19,160	19,160	19,160	98,962	1.65		
JKUAT	29,244	24,194	24,194	24,194	24,194	126,020	12.52		
Makerere University	32,164	29,002	29,002	29,002	29,002	148,172	2.47		
Chinhoyi University	31,364	28,202	28,202	28,202	28,202	144,172	14.33		
Wageningen University	15,306	15,028	15,028	15,028	15,028	75,418	1.26		
Copenhagen University	25,446	25,068	25,068	25,068	25,068	125,718	2.10		
Sanergy Ltd	8,772	9,094	9,094	9,094	9,094	45,148	0.75		
Uga Ltd	8,452	8,774	8,774	8,774	8,774	43,548	0.73		
Sigma Feeds Ltd	8,452	8,774	8,774	8,774	8,774	43,548	0.73		
TOTALS	1,169,913	1,208,300	1,207,300	1,207,300	1,207,187	6,000,000	100.00		
Total Partner Year Budget	215,420	197,696	197,696	197,696	197,696	1,006,204			
Partner % of total Budget	18.41	16.36	16.38	16.38	16.38	16.77			

7. DETAILED ACTIVITY SHEET

: Detailed Activity Sheet (1.1) **Table 10. 1**

: 1.0. Strengthen education capacity (excellence) and development impact : 2nd Qtr Y1 – 20th Qtr Y5 **Key Activity**

Time Frame

: 1.1. Develop new relevant multidisciplinary MSc and PhD food security curricula with **Sub-Activity**

regular reviews

RESULT	Stude	Students equipped with requisite knowledge and skills									
ACTIVITY		1.1. Develop new relevant multidisciplinary MSc and PhD food security curricula & regular reviews									
OUTPUT	Sciene Nutrit	Graduates with diversified skills: The centre will develop MSc Food Security (Food Science, Food Safety and Quality Control, Nutrition and Dietetics; Food Security and Nutrition, and Community Nutrition); MSc Entomology; and MSc Biotechnology and Develop PhD food security curriculum									
OUTPUT INDICATO			expose the	e	SOURCE OF VERIFICATION: Number of developed programs						
IMPLEMENTATION MILESTONES	c and 1PhD cur	urricula in related areas developed by 4 th Qtr, Y1									
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION		r Director & Pr	incipal I	nvestigato	or/DCD						
DURATION: 5 Years Commence			ement: 2 nd Qtr Y1 Completion: 20 th Qtr Y5								
PRIMARY CONSTITUTE and JOOUST	ΓUENTS: I	UCEA, GoK	PAR	ΓΙΟΙΡΑΝ΄	rs: joou	JST-ACE Team a	nd Partners				
ASSUMPTIONS					multidisciplinary MSc and PhD food security curricula will be supported ners and regular reviews						
FINANCIAL Budget from JO IMPLICATIONS			OOUST-ACE (USD)								
Budget Line Analysis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total			
Develop MSc Food Security; MSc Entomology; and MSc Biotechnology				3,000	3,000	3,000		9,000			
2 Develop PhD food security curriculum				1000	1000	1000		3,000			
TOTALS				4000	3000	4000		12,000			

Table 10.2 : Detailed Activity Sheet (1.2)

Key Activity
Time Frame
: Detailed Tetrity Sheet (12)
: 1.0. Strengthen education capacity (excellence) and development impact.
: 4th Qtr Y1 – 8th Qtr Y2
Sub-Activity: 1.2 Benchmark and obtain accreditation for MSc and PhD food security curriculum

RESULT	A curriculum meeting national educational standard								
ACTIVITY	1.2. Obtain accreditation for MSc and PhD food security curriculum								
OUTPUT	Accredited programs and curricula								
OUTPUT INDICATOR: Ph.D. programme from C		tion for the MSc and		SOURCE OF VERIFICATION: 1.2 Certificate of accreditation					
IMPLEMENTATION MILESTONES	1.2. Accreditation for MSc and Ph.D. programmes obtained by Y2								
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Pr	rincipal Investigator/DC	'D						
DURATION: 2 Years	Commencen	nent: 4 th Qtr Y1	Completion: 8 th Qtr Y2						
PRIMARY CONSTITUENTS: GoK and JOOUST BPS, CUE, IUCEA PARTICIPANTS: JOOUST School of Agriculture Board, JOOUST BPS, CUE, IUCEA									
ASSUMPTIONS CUE will accredit the MSc and PhD programmes on time for the commencement of the programme									
FINANCIAL IMPLICATIONS	Budget from JOC	OUST-ACE (USD)							
Budget Line Analysis	1 st Qtr	2 nd Qtr 3 rd Qtr	4 th Qtr	Total					
Certificate from (3MSc and 1Phl			12,000	12,000					
2 Certificate from International (1			3,000	3,000					
TOTALS			15,000	15,000					

Table 10.3

: Detailed Activity Sheet (1.3.)
: 1.0. Strengthen education capacity (excellence) and development impact.
: 2nd Qtr Y1 - 20th Qtr Y5
: 1.3. Rehabilitate and upgrade teaching and learning facilities **Key Activity**

Time Frame

Sub-Activity

RESULT	Enabling environment for cut	ting edge research for student and staff								
ACTIVITY	1.3. Rehabilitate and upgrade teaching and learning facilities									
OUTPUT		1.3. Teaching and learning facilities infrastructure improved. By Y5, laboratories and demonstration structures would have been expanded and equipped.								
OUTPUT INDICATOR: Laboratories rehabilitated		SOURCE OF VERIFICATION: Improved Laboratory equipment, space and new laboratories; Inspection certification								
IMPLEMENTATION MILESTONES	Teaching and learning facilities	Teaching and learning facilities rehabilitated and upgraded by Y5								
PROCUREMENT	Sole sourcing, Competitive te	Sole sourcing, Competitive tender								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal In	Center Director & Principal Investigator/DCD								
DURATION: 5 Years	Commencement: 2 nd Qtr	Completion: 20 th Qtr Y5								
PRIMARY CONSTITUE ACE, CUE, GoK	NTS: JOOUST PARTICE	OUST PARTICIPANTS: IUCEA, Partners								
ASSUMPTIONS Pro	ocurement procedures and processor	rement procedures and processes at the JOOUST University will be strictly adhered to								
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)									
Budget Line Analysis	$\begin{bmatrix} 1^{st} \\ Qt \\ r \end{bmatrix} \begin{bmatrix} 2^{nd}Qtr \\$	3 rd Qtr 4 th Qtr Total								
Rehabilitate Food chemistry labora		15,000								
2 Building inspects certification	on and	3,000								
TOTALS	15,000	3,000 18,000								

RESU	ULT	A sour	nd financial	system that	meets all inte	ernational best pract	tices		
ACT	IVITY	1.4. Se	t up a grants	manageme	ent scheme an	d allocate research	funds		
OUT	PUT	1.4. Re	nancial reports, ann	ancial reports, annual work plan, and budgets.					
	PUT INDICATOR: ts and one audit repo		access to tv	wo publishe	ed financial		F VERIFICATION: 1.4. ocuments on JOOUST-ACE		
IMPLEMENTATION MILESTONES 1.4. Budgets, annual work plans, audit reports, financial reports published on JO ACE website by Y5.									
PROG	CUREMENT	N/A							
FOR	PONSIBILITY LEMENTATION	Center	Director &	nvestigator/D0	CD				
DUR	ATION: 4 Years		Commenc	ement: 2 nd (Qtr Y1	Completion: 1	6 th Qtr Y4		
	IARY CONSTITUE OOUST	ENTS: IU	ICEA, GoK	PART	TICIPANTS: .	JOOUST-ACE Tea	m and Partners		
ASSU	JMPTIONS Gr	ants man	agement scl	heme and a	llocation of fu	ands will be support	ted by all partners		
	NCIAL LICATIONS	Bu	dget from J	OOUST-A	CE (USD)				
Budg Analy	et Line ysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total		
1	Design (consulta	incy fee)		4000	4000	0	8000		
2	Allocate funds(N &PhD students)	ИSc				100,000	100,000		
3	Stipend					53,600	53,600		
TOTA	ALS			4000	4000	153,600	159,600		

Table 10.5

: Detailed Activity Sheet (1.5.)
: 1.0. Strengthen education capacity (excellence) and development impact
: 2nd Qtr Y1 -20th Qtr Y5
: 1.5. Strengthen ICT infrastructure for teaching and learning **Key Activity**

Time Frame

Sub-Activity

RESU	JLT	Provi	sion of readily a	ccessible in	formation	on Insects f	for food and	feed					
ACTI	VITY	1.5. S	trengthen ICT ir	rastructure for teaching and learning									
OUTF	PUT	Acces	ssibility to ICT r	sources for teaching, learning, research and dissemination									
	PUT INDICATOR ble broadband cor		•	ing tools wi	SOURCE OF VERIFICATION: Number of computers and accessories procured; Broad band connectivity; Number of programs on ICT platform								
	EMENTATION STONES	1.5. I	CT infrastructure	e established	d by Y5								
PROC	CUREMENT	Procu	re Quality comp	uter faciliti	es (Hardwa	are and soft	wares)						
FOR	ONSIBILITY EMENTATION	Cente	er Director & Pri	ncipal Inves	cipal Investigator/DCD								
DURA	ATION: 5 Years		Commenceme	ent: 2 nd Qtr	Y1	Compl	etion: 20 th Q	tr Y5					
PRIM	ARY CONSTITU	ENTS:		PARTICII	PARTICIPANTS:								
ASSU	UMPTIONS Es	stablishı	ment of ICT reso	urces will be supported by all participants/partners									
	NCIAL ICATIONS	В	udget from JOO	UST-ACE	(USD)								
Budge Analy	et Line rsis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total				
1	Procure LCD P laptop@50,000	·@60,000;		60,000	50,000			110,000					
2	Procure Applications of tware @ 49,00 Dedicate bandw	0Mb@50,000		49,000				49,000					
TOTA	ALS				109	50,000			159,000				

Table 10.6

: Detailed Activity Sheet (1.6)
: 1.0. Strengthen education capacity (excellence) and development impact.
: 2nd Qtr Y1 – 19th Qtr Y5
: 1.6. Advertise and admit students into MSc and PhD programmes **Key Activity**

Time Frame

Sub-Activity

RESU	JLT	Qualit	ied students ad	mitted into	PhD and	MS	c progra	mmes					
ACTI	VITY	1.6. A	dvertise and ad	lmit students into MSc and PhD programmes									
OUTPUT 1.6. Non-national and national students admitted. Between April and June every year from 2017, a call for application will be posted on the ACE website, advertised in regional print media and sent to all partner institutions in the region in snail mail. Applications for admission will done online													
	PUT INDICATOR students	: 1.6. A	dmission docur	ments for N	MPhil and			RCE OF '			ΓΙΟΝ:1.6		
	EMENTATION STONES	1.6. 60	MSc students	and 20 Ph	D students	adr	nitted by	Y5					
PROC	CUREMENT	N/A											
FOR	ONSIBILITY EMENTATION	Center	Director & Pri	ncipal Inv	estigator/D	CD)						
DURA	ATION: 5 Years		Commenceme	ent: 2 nd Qt	r Y1		Comple	etion: 19 ^t	h Qtr	Y5			
	IARY CONSTITU GOK,IUCEA	ENTS:	JOOUST-	PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSU	UMPTIONS Th	ne Admi:	ssions Committ	tee shall admit students following an open, merit-based procedure.									
	NCIAL ICATIONS	Ві	ndget from JOO	UST-ACE	E (USD)								
Budge Analy	et Line vsis			1 st Qtr	2 nd Qtr	3	rd Qtr	4 th Qtr			Total		
1	Develop and pr	oduce bi	rochures		2000						2,000		
2	Advertise in the	e print m	edia		4000						4,000		
3	Advertise on the	e websit	e		800						800		
TOTA	ALS				6,800						6,800		

RESULT Students equipped with requisite knowledge and skills											
ACTIVITY	1.7. Offer require	7. Offer required taught courses to MSc and PhD students									
OUTPUT	OUTPUT 1.7. Courses taught - All first year MSc students will take core units in food security be majoring in 2 nd year. PhD students will be taught advanced modules in insect science										
OUTPUT INDICATOR: Course outlines and Course evaluation forms for MSc programme. Modular presentations for the PhD programme SOURCE OF VERIFICATION: 1. Course outline, Course evaluation forms for Course outline, Course evaluation for the PhD programme.											
IMPLEMENTATION MILESTONES 1.7. Offer required taught courses to MSc and PhD students by Y1											
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION Center Director & Principal Investigator/DCD											
DURATION: 5 Years	Commen	ncement: 4 th Qtr	Y1	C	ompletion: 2	0 th Qtr Y5	5				
PRIMARY CONSTITU CUE, GoK	ENTS: JOOUST-A	CE, PARTI	CIPANTS:	Visitin	g faculty, Pa	rtner Insti	tutions, ICUEA				
	ssociate Faculty and odules	d Visiting Scier	ntists will su	ipport t	he teaching o	of all acad	emic courses and				
FINANCIAL IMPLICATIONS	Budget from	JOOUST-ACE	E (USD)								
Budget Line Analysis	1 st Q	Qtr 2 nd Qtr	3 rd Qtr	4 th Qtr			Total				
1 Visiting Schola accommodation honoraria costs	and	15,000					15,000				
TOTALS		15000					15,000				

Table 10.8

: Detailed Activity Sheet (1.8)
: 1.0. Strengthen education capacity (excellence) and development impact.
: 4th Qtr Y1 – 19th Qtr Y5
: 1.8. Initiate and implement regional student exchanges to broaden learning **Key Activity**

Time Frame

Sub-Activity

Experience

RESULT			vith cross c		institut	tional learning e	experie	nces and with		
ACTIVITY	1.8. Initiat	e and imp	lement regi	onal stude	nts excl	nanges to broad	en learı	ning experience		
OUTPUT	provide an	Enhanced capacity and cross cultural skills: Promotion of cross learning at JOOUST, vide an opportunity for interaction with experienced researchers, building networks and ancement employability.								
OUTPUT INDICATOR:	Students und	lergone ex	change pro	ogram		SOURCE OF VERIFICATION: Number of students on exchange program.				
IMPLEMENTATION MILESTONES 1.8. Full enhancement with cross cultural and institutional learning experiences Y5								eriences Y5		
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	enter Director & Principal Investigator/DCD								
DURATION: 5 Years	Co	ommencei	tr Y1	(Completion: 19 ^t	^h Qtr Y	5			
PRIMARY CONSTITUE and JOOUST	ENTS: IUCE	TS: IUCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners								
ASSUMPTIONS	l participant	s will be c	ooperative	for effective	e moni	toring and eval	uation			
FINANCIAL IMPLICATIONS	Budge	et from JO	OUST-AC	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qt	tr		Total		
Students: travel, accommodation stipends per year airfare]					12,00	00		12,000		
TOTALS					12,00	00		12,000		

: Detailed Activity Sheet (1.9) **Table 10.9**

Key Activity: 1.0. Strengthen education capacity (excellence) and development impact. **Time Frame**: 1st Qtr Y1 - 20th Qtr Y5

Sub-Activity: 1.9. Develop and offer relevant short courses for special groups

RESULT	Stude	nts equippe	ed with stro	ng conceptu	ıal, te	chnical and a	nalytical s	skills			
ACTIVITY	1.9. D	evelop and	l offer relev	ant short co	urses	for special gr	oups				
OUTPUT				s to be offered for full time, part-time or e-platform: Honoraria, ravel, consumables, certificates, preparation of training materials							
OUTPUT INDICATOR	: Short	course cur	riculum	SOURCE OF VERIFICATION: 8 short courses developed							
IMPLEMENTATIO N MILESTONES	8 Sho	rt courses o	curriculum (urriculum developed by Y1							
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATIO N	Cente	r Director o	& Principal	Principal Investigator/DCD							
DURATION: 5 Years		Commer	acement: 1 st	Qtr Y1		Completion:	20 th Qtr Y	<u>7</u> 5			
PRIMARY CONSTITU	JENTS:	JOUST-A	CE, GoK PARTICIPANTS: JOOUST Faculty, IUCEA						A		
ASSUMPTIONS	ne curric	culum deve	lopment wi	ll be suppor	ted by	y all participa	nts/partne	rs			
FINANCIAL IMPLICATIONS	В	udget from	JOOUST-A	ACE (USD)							
Budget Line Analysis			1 st Qtr	2 nd Qtr	3 rd	Qtr 4 th Qtr			Total		
Honoraria, accorriavel, consuma preparation of t	ables, ce	ertificates,	2000	2000	200	2000			8,000		
TOTALS			2000	2000	200	00 2000			8,000		

Table 10.10

:Detailed Activity Sheet (1.10)
:1.0. Strengthen education capacity (excellence) and development impact
: 5th Qtr Y2 - 20th Qtr Y5
:1.10. Develop content and convert for delivery by e-learning platform **Key Activity**

Time Frame Sub-Activity

RESULT	Learning	g content de	veloped ar	nd delivere	ed on e-p	latform				
ACTIVITY	y e-learning	platform								
OUTPUT Accessibility for teaching, learning and research										
OUTPUT INDICATOR: and learning activities	Enhanced	communica	unication, information sharing SOURCE OF VERIFICATION: Teleconferencing facility							
IMPLEMENTATION MILESTONES Content delivered via e-platform by 5 th Qtr Y2										
PROCUREMENT N/A										
RESPONSIBILITY FOR IMPLEMENTATION Center Director & Principal Investigator/DCD										
DURATION: 4 Years		Commence	ment: 5 th Q	Qtr Y2		Completion:	20 th Qtr Y	75		
PRIMARY CONSTITUTION and JOOUST	ENTS: IUC	EA, GoK	PART	CIPANTS	S: JOOU	ST-ACE Te	am and Pa	rtners		
ASSUMPTIONS	earning con	tent develo	pment and	delivery v	/ia e-plat	form will be	e supported	l by all partners		
FINANCIAL IMPLICATIONS	Budg	get from JO	OUST-AC	CE (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total		
Preparation of c staff	content by		0	0	0			0		
2 Conversion of t	he content		0	0	0			0		
TOTALS			0	0	0			0		

Table 10.11

Key Activity

Time Frame

:Detailed Activity Sheet (1.11)
: 1.0. Strengthen education capacity (excellence) and development impact
: 3rd Qtr Y1 – 16th Qtr Y4
: 1.11. Expand the existing library resources including e-resources relevant to the ACE Sub-Activity

RESULT	Enhand	ced access t	o training a	and research	materia	ıls					
ACTIVITY	1.11. E	xpand the e	xisting libr	ary resource	es includ	ling e-resources	s relevai	nt to the ACE			
OUTPUT Improved Information Technology capacity and external connectivity of the library											
OUTPUT INDICATOR: server and other IT device			SOURCE OF VERIFICATION: Procurement Documents								
IMPLEMENTATION MILESTONES	Existin	g library res	sources exp	anded by Y	2						
PROCUREMENT Sole sourcing, Competitive tender											
RESPONSIBILITY FOR IMPLEMENTATION Center Director & Principal Investigator/DCD											
DURATION: 4 Years		Commenc	ement: 3 rd	Qtr Y1	(Completion: 16	th Qtr Y	4			
PRIMARY CONSTITUTION and JOOUST	ENTS: IU	CEA, GoK	PART	TICIPANTS	: JOOU	ST-ACE Team	and Par	rtners			
	xpansion o	of the existi	ng library ı	resources in	cluding	e-resources wil	l be sup	ported by all			
FINANCIAL IMPLICATIONS	Bu	dget from J	OOUST-A	CE (USD)							
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total			
1 Periodic subscri	ption			25000	0			25,000			
2 Book Purchases				0	51,00	0		51,000			
TOTALS				25000	51000)		76,000			

:Detailed Activity Sheet (1.12) **Table 10.12**

Key Activity

Time Frame

: 1.0. Strengthen education capacity (excellence) and development impact.
: 3rd Qtr Y1 - 20th Qtr Y5
: 1.12. Broaden students' knowledge and skills through internship at advanced research **Sub-Activity**

institutions and industries

RESULT	Enhanced students' knowledge and skills in their respective fields of specialization										
ACTIVITY	1.12. Broa	.12. Broaden students' knowledge and skills through internship at advanced research astitutions									
OUTPUT	engage ad	Enhanced knowledge base in insect in insect science and technology. The Centre will engage advanced research institutions such as KALRO, ICIPE, KEMRI aimed at broadening the knowledge and skills base of students.									
OUTPUT INDICATOR: Enhanced knowledge and		of participa	ated students	S		VERIFICATION: ' internship reports					
IMPLEMENTATION MILESTONES	1.12 Orga	nize intern	ship for stud	dents by Y3							
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	rector & Pr	incipal Inve	estigator/DCD)						
DURATION: 5 Years	C	ommencen	nent: 3 rd Qtr	· Y1	Completion: 20 th	h Qtr Y5					
PRIMARY CONSTITUE	NTS: JOOU	JST-ACE	PARTIC	IPANTS: Reg	gional and internation	onal partners					
	lvanced rese ernship	arch institu	itions and s	tudents be sup	pportive prior and d	luring the period of					
FINANCIAL Budget from JOOUST-ACE (USD) IMPLICATIONS											
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total					
1 Internship			0	0	0						
TOTALS			0	0	0	0					

Table 10.13

Detailed Activity Sheet (1.13)
1.0. Strengthen education capacity (excellence) and development impact.
5th -8th Qtr Y2 **Key Activity**

Time Frame

Sub-Activity : 1.13. Provide appropriate tools for people with disabilities to access learning and

research

RESULT	Enhanced teaching/lea	arning materials used in	the instructional process.				
ACTIVITY	1.13. Provide appropri	ate tools for people with	n disabilities to access learning and research				
OUTPUT	Improvement in the nu accessing education from		arners from marginalized communities				
OUTPUT INDICATOR:	Learning tools procured	1	SOURCE OF VERIFICATION: Number of assistive devices procured				
IMPLEMENTATION MILESTONES	Procure assistive device	ces for various challenge	es by Y2				
PROCUREMENT	Sole sourcing, Compet	titive tender					
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Prin	ncipal Investigator/DCD					
DURATION: 1 Year	Commenceme	ent: 5 th Qtr Y2	Completion: 8 th Qtr Y2				
PRIMARY CONSTITUE and JOOUST	ENTS: IUCEA, GoK	S: IUCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners					
ASSUMPTIONS AI	ll participants will be coo	operative for effective m	onitoring and evaluation				
FINANCIAL IMPLICATIONS	Budget from JOOI	UST-ACE (USD)					
Budget Line Analysis 2 nd Qtr 3 rd Qtr 4 th Qtr Total							
Presence of assist devices for various challenges							
TOTALS							

Table 10. 14 :Detailed Activity Sheet (2.1)

Key Activity

Time Frame

: 2.0. Strengthen research capacity (excellence)
: 3rd Qtr Y1 - 20th Qtr Y5
: 2.1. Scale up MSc and PhD research in key areas in insect science and food security **Sub-Activity**

RESULT	An impro	oved researc	ch knowled	lge in the fi	eld of s	udents' specializa	ntion			
ACTIVITY	2.1. Scale	e up MSc ar	nd PhD res	earch in key	y areas :	n insect science a	nd food security			
OUTPUT	2.1 Enha	anced research and supervision. The Centre will fund the research work of students security.								
OUTPUT INDICATOR: progress monitored	2.1. Studer	its' research	work fund	led and			SOURCE OF VERIFICATION: 2.1 Fund remittance advice, supervisory reports			
IMPLEMENTATION MILESTONES 2.1 Fund and supervise students' research by Y3										
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center D	irector & Pr	incipal Inv	vestigator/D	OCD					
DURATION: 5 Years		Commencen	nent: 3 rd Q	tr Y1	C	Completion: 20 th Qtr Y5				
PRIMARY CONSTITUE	NTS: JOO	UST ACE	ST ACE PARTICIPANTS: Associate faculty							
ASSUMPTIONS	l partners a	nd Associat	e Faculty b	e supportiv	ve durin	g the entire resear	rch phase			
FINANCIAL IMPLICATIONS	Budg	get from JO	OUST-AC	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total			
Scale up MSc an research	d PhD		1500	3000	1500		6,000			
TOTALS			1500	3000	1500		6,000			

Table 10. 15

Key Activity

Time Frame

: Detailed Activity Sheet 2.2
: 2.0. Strengthen research capacity (excellence)
: 4th Qtr Y1 - 20th Qtr Y5
: 2.2 Expand regional and international collaborations and joint research **Sub-Activity**

Programmes

RESULT	Functiona	al partnersh	ip platforn	ns for regiona	al and	d international collaboration in res	earch				
ACTIVITY	2.2 Expar	.2 Expand regional and international collaborations and joint research programmes									
OUTPUT	2.2. New	w partners engaged and existing strengthened									
OUTPUT INDICATOR:	New Partne	ership MoUs	s .			SOURCE OF VERIFICATION: Partnership records					
IMPLEMENTATION MILESTONES	2.2. Estab	olish new pa stakeholder	artnerships s meeting	and strength by Y5	en ex	cisting ones in Insect research and					
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center Di	rector & Pr	incipal Inv	vestigator/DC	CD						
DURATION: 5 Years	С	Commencement: 4 th Qtr Y1				Completion: 20 th Qtr Y5					
PRIMARY CONSTITUE	ENTS: JOOI	DUST-ACE PARTICIPANTS: Regional and international partners									
ASSUMPTIONS Ex	kisting and r	new partners	s will e su	pportive at al	l stage	res					
FINANCIAL IMPLICATIONS	Budg	et from JOC	OUST-AC	E (USD)							
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th C	Qtr Total					
1 Regional and incollaborations	ernational	5000	5000	5000	4,60	00 8,000					
TOTALS						19,600					

:Detailed Activity Sheet (2.3) **Table 10.16**

Key Activity

Time Frame

2.0. Strengthen research capacity (excellence).
2nd Qtr Y1- 15th Qtr Y4
2.3. Equip and rehabilitate research laboratories for upscaling insect rearing, **Sub-Activity**

processing and analysis

RESULT	Enablir	nabling environment for cutting edge research								
ACTIVITY		2.3. Equip and rehabilitate research laboratories for upscaling insect rearing, processing and analysis								
OUTPUT		3 Existing biology laboratory will be rehabilitated with state-of-the-art facilities for utting edge research								
OUTPUT INDICATOR:	TPUT INDICATOR: 2.3 Lab equipment purchased SOURCE OF VE Procurement doc									
IMPLEMENTATION MILESTONES	2.3. Rel	.3. Rehabilitate research labs by Y4								
PROCUREMENT	Sole so	Sole sourcing, Competitive tender								
RESPONSIBILITY FOR IMPLEMENTATION	Center 1	Center Director & Principal Investigator/DCD								
DURATION: 4 Years		Commence	ment: 2nd Q	tr Y1	(Completion: 15 th Qtr Y4				
PRIMARY CONSTITUE	ENTS: JO	OUST-ACE	PART	ICIPANTS:	JOOI	UST Procure	ement			
ASSUMPTIONS Pro	ocuremen	t procedures	and proces	ses at the U	niversi	ty of Ghana	will be st	rictly adhered to		
FINANCIAL IMPLICATIONS	Buc	lget from JC	OUST-ACI	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Q	tr		Total		
Equip and rehab research laborate								50,000		
TOTALS								50,000		

Table 10. 17

Key Activity

Time Frame

: Detailed Activity Sheet (2.4)
: 2.0. Strengthen research capacity (excellence)
: 2nd Qtr Y1 – 20th Qtr Y5
: 2.4. Enhance faculty research capacity through staff development, exchange **Sub-Activity**

programmes and visits

RESU	ULT	Improved	staff capac	city in kno	wledge and s	skills i	n research a	and public	ations				
ACTI	IVITY	2.4. Enhar and visits	nce faculty	research c	apacity throu	ugh sta	ıff developı	ment, excl	nange programmes				
OUTI	PUT	research g	2.4. Enhanced capacity building for faculty: This will be achieved through: setting up research grant pools to support research activities at the centre; giving staff incentives based on achievement										
OUTI	PUT INDICATOR: rch.	nic improv	ed knowled	dge and skill	s in	SOURCE OF VERIFICATION: Report of skills audit							
	LEMENTATION ESTONES	2.4. Full e	2.4. Full enhanced capacity by 20th Qtr, Y1-Y5										
PROC	CUREMENT	N/A	N/A										
FOR	PONSIBILITY LEMENTATION	Center Director & Principal Investigator/DCD											
DUR	ATION: 5 Years	С	ommencen	nent: 2nd (Qtr Y1	C	Completion: 20th Qtr Y5						
	IARY CONSTITUE OOUST	ENTS: IUCE	A, GoK	PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSU	UMPTIONS Al	l participant	s will be co	ooperative	for effective	moni	toring and e	evaluation					
	NCIAL LICATIONS	Budge	et from JO	OUST-AC	E (USD)								
Budge Analy	et Line ysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th	Qtr		Total				
1	Travel and subs cost (3 persons/y			2,800	2,800	3,0	000		8,600				
2	Postdoctoral fell persons/yr x 3yrs mnths			5,000	5,000	5,0	000		15,000				
TOTA	ALS			7,800	7,800	8,0	000		23,600				

Table 10.18: Detailed Activity Sheet (2.5)Key Activity: 2.0. Strengthen research capacity (excellence).Time Frame: 1st Qtr Y1 - 11th Qtr Y3Sub-Activity: 2.5. Recruit qualified technical and support staff

RESULT	Support staff recruited with requisite knowledge and skills relevant to the ACE									
ACTIVITY	2.5. Recruit qualified technical and support staff									
OUTPUT	5. Technical and support staff recruited. The Centre has a well-designed incentive ructure to retain recruited staff.									
OUTPUT INDICATOR:	Qualified technical and support staff recruited SOURCE OF VERIFICATION: Number of technical and support staff recruited.									
IMPLEMENTATION MILESTONES	1 Food technologist, 2 technicians and 2 support staff recruited by 15 th , Qtr Y1									
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 2 Years	Commencement: 1st Qtr Y1 Completion: 11th QtrY3									
PRIMARY CONSTITUE JOOUST	ENTS: GoK and PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSUMPTIONS	l participants will be cooperative for effective monitoring and evaluation									
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)									
Budget Line Analysis	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$									
1 Cost of adverts	1,000									
2 salaries and allo	wances 1,000 6,000 7,000									
TOTALS	8,000									

Table 10.19 : Detailed Activity Sheet (2.6)

: 2.0. Strengthen education capacity (excellence) and development impact. : 4^{th} , 8^{th} , 12^{th} , 16^{th} &20th Qtrs Y1-Y5 **Key Activity**

Time Frame

: 2.6. Conduct training workshops and seminars to broaden students' learning **Sub-Activity**

experience

RESULT	Students ed	quipped wi	th requis	ite knowled	lge and	skills					
ACTIVITY	2.6. Condu	ct training	worksho	ps and sem	inars to	broaden stude	nts' learr	ning experience			
OUTPUT		2.6. By Y5, JOOUST ACE would have conducted training workshops aimed at broadening he knowledge and skills of participants to be abreast of current trends in Insect science.									
OUTPUT INDICATOR:	Four training	g workshop	s and se	minar repoi	ts	SOURCE OF VERIFICATION: workshops and seminar reports					
IMPLEMENTATION MILESTONES	Organize for Y5	Organize four training workshops and seminars to broaden students' learning experience by Y5									
PROCUREMENT	N/A	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Dire	Center Director & Principal Investigator/DCD									
DURATION: 5 Years	Со	mmencem	ent: 4 th Q	etr Y1		Completion: 20 th Qtr Y5					
PRIMARY CONSTITUI ACE, GoK	ENTS: JOOU	ST-	PART	CIPANTS	MoE,	Students					
ASSUMPTIONS	ollaborating p	artners and	l particip	ants will be	suppo	rtive at all stage	es of the	training workshop			
FINANCIAL IMPLICATIONS	Budget	from JOC	UST-AC	CE (USD)							
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qt	r		Total			
Cost of adverts a allowances					12,80	00		12,800			
TOTALS					12,80	00		12,800			

Table 10. 20
Key Activity: Detailed Activity Sheet (2.7): 2.0. Strengthen research capacity (excellence)Time Frame: 1st Qtr Y1 - 8th Qtr Y2Sub-Activity: 2.7. Develop and sign MoUs with partner institutions

RESULT		Strengthen research infrastructure and management capacity globally through model programs in insect science								
ACTIVITY	2.7. Deve	elop and sig	n MoUs wi	th partner	institut	ions				
OUTPUT	Partnersh	Partnership arrangements and networks for ACE INSEFOODS								
OUTPUT INDICATOR	ed			SOURCE OF VERIFICATION: MOU documents						
IMPLEMENTATION MILESTONES	Partnersh	artnership MOU developed and signed by 2								
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center D	Center Director & Principal Investigator/DCD								
DURATION: 2 Years	(Commencement: 1 st Qtr Y1 Completion: 8 th Qtr Y2								
PRIMARY CONSTITUTION OF AND IUCEA	JENTS: JOO	OUST,	PARTIC	IPANTS:	JOOU	JST-ACE Team and Partners				
ASSUMPTIONS	All participar	nts will be co	poperative	for effecti	ve MOI	U development and signing				
FINANCIAL IMPLICATIONS	Budg	get from JOC	OUST-ACI	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Q tr	3 rd Qtr	4 th Qtı	r Total				
1 Legal fees		3,000				3,000				
2 Travel & acco	Travel & accommodation for council 5,000					5,000				
3										
TOTALS		8,000				8,000				

Table 10. 21
Key Activity: Detailed Activity Sheet (2.8)
: 2.0. Strengthen research capacity (excellence).Time Frame
Sub-Activity: 2nd Qtr Y1 - 20th Qtr Y5
: 2.8. Attract, retain and retool faculty in areas relevant to the ACE

RESULT	Faculty	retooled with	h requisite l	knowledge ar	nd skil	ls relevai	nt to the A	СЕ		
ACTIVITY	2.8. Atta	ract, retain an	nd retool fac	culty in areas	releva	ant to the	ACE			
OUTPUT	structure	2.8. Faculty attracted, retained and retooled: The Centre is designed with incentive structure to retain recruited faculty. These incentives include paid accommodation, health insurance, duty vehicle, communication allowance, education and health concession for registered dependents.								
OUTPUT INDICATOR	: 2.8. One	Faculty train	ing report.			SOURCE OF VERIFICATION: Faculty training report				
IMPLEMENTATION MILESTONES	2.8. Fac	2.8. Faculty retooled by Y5								
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center I	Center Director & Principal Investigator/DCD								
DURATION: 5 Years		Commencen	ommencement: 2 nd Qtr Y1				n: 20 th Qtr	Y5		
PRIMARY CONSTITU and JOOUST	ENTS: IU	CEA, GoK	A, GoK PARTICIPANTS: JOOUST-ACE Team and Partners							
ASSUMPTIONS	ll participa	ants will be co	ooperative 1	for effective t	faculty	skills en	nhancemen	nt		
FINANCIAL IMPLICATIONS	Bud	lget from JO	OUST-ACE	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Q	tr		Total		
specialized area [Nutrition and of food quality and and agricultural	Retool staff in 4 specialized areas - [Nutrition and dietetics, food quality and safety and agricultural entomology, M&E]							16,000		
TOTALS		8,000	8,000					16,000		

Table 10.22: Detailed Activity Sheet (2.9)Key Activity: 2.0. Strengthen research capacity (excellence).Time Frame: 2nd Qtr Y1 - 20th Qtr Y5Sub-Activity:2.9. Publish in peer reviewed journals

RESULT	Resear	ch publicatio	ns in recog	nized peer-re	viewed jou	ırnals				
ACTIVITY	2.9. Pu	blish in peer	reviewed jo	ournals						
OUTPUT	will ha to exist visibili	2.9. Research publications in recognized peer-reviewed journals. By 31.12.2020, the centre will have published in internationally recognized peer reviewed journal: This will add up to existing knowledge in the areas of insect science. The Centre will also gain international visibility as an African Centre of Excellence for contributing to the existing body of knowledge.								
OUTPUT INDICATOR: 2.9. 10 Research publication per year in peer reviewed journals SOURCE OF VERIFICATION: Research Publications folder										
IMPLEMENTATION MILESTONES	2.9. 40	2.9. 40 research publication by Y5								
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION		Center Director & Principal Investigator/DCD								
DURATION: 5 Years	3	Commence	ment: 2 nd Q	tr Y1	Comp	Completion: 20 th Qtr Y5				
PRIMARY CONSTIT	UENTS: IU	JCEA, GoK	PARTI	CIPANTS: JO	DOUST-A	CE Team	and Pa	rtners		
ASSUMPTIONS	Publication	of peer-revie	wed resear	ch findings w	vill be supp	orted by	all parti	cipants/partners		
FINANCIAL IMPLICATIONS	Bu	dget from JO	OUST-AC	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total		
1 10 Publication year	n costs per	sts per 2,000 3,000 5,000 5,						15,000		
TOTALS		2,000	3,000	5,000	5,000			15,000		

Table 10.23:Detailed Activity Sheet (2.10)Key Activity: 2.0. Strengthen research capacity (excellence).Time Frame: 2nd Qtr Y1 - 20th Qtr Y5Sub-Activity: 2.10. Support scientific conference presentations

RESULT	Staff knowledge generation and transfer									
ACTIVITY	2.10. Support scientific conference presentations									
OUTPUT	Enhancing capacity building for faculty leading to improved knowledge and skills in esearch									
OUTPUT INDICATOR: in research	2.10. Academic improved knowledge and skills SOURCE OF VERIFICATION: Report of skills audit									
IMPLEMENTATION MILESTONES	2.10. Support staff and students' conference presentations by Y5									
PROCUREMENT	I/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 5 Years	Commencement: 2 nd Qtr Y1 Completion: 20 th Qtr Y5									
PRIMARY CONSTITUE and JOOUST	NTS: IUCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSUMPTIONS	l participants will be cooperative for effective monitoring and evaluation									
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)									
Budget Line Analysis	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$									
1 Transport cost, r subsistence cost	egistration, 9,000 9,000 18,000									
TOTALS	9,000 9,000 18,000									

Table 10.24:

Key Activity:

Time Frame:

Detailed Activity Sheet (2.11)
2.0. Strengthen research capacity (excellence)
5th Qtr Y2 - 20th Qtr Y5
2.11. Develop insect technology incubation and skills transfer hub **Sub-Activity:**

RESULT	Enhanced knowledge base in insect in insect science and t	echnology								
ACTIVITY	2.11. Carry out an implementation survey and impact asser community outreach activities	ssments through participatory								
OUTPUT	2.11. Enhanced scientific capacity across the country and regionally									
OUTPUT INDICATOR: outreach plans	Numbe plans d	SOURCE OF VERIFICATION: Number of strategic regional outreach plans developed; Number of community outreach plans developed								
IMPLEMENTATION MILESTONES	2.11. Carry out an implementation survey and impact assessments by Y3									
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 3 Years	Commencement: 5 th Qtr Y2	n: 20 th Qtr Y5								
PRIMARY CONSTITUTE and JOOUST	NTS: IUCEA, GoK PARTICIPANTS: JOOUST-ACE	Team and Partners								
ASSUMPTIONS Ca	rying out survey and impact assessment will be supported b	by all participants/partners								
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)									
Budget Line Analysis	$\begin{array}{ c c c c c }\hline 1^{st}Qtr & 2^{nd}Qtr & 3^{rd}Qtr & 4^{th}Qtr \\ \hline \end{array}$	Total								
Write proposal a funds to develop technology incu skills transfer hu	nsect ation and	0								
TOTALS		0								

Table 10.25 :Detailed Activity Sheet (3.1)Key Activity:3.0. Attracting regional faculty and students.Time Frame:3rd Qtr Y1 - 6th Qtr Y2Sub-Activity:3.1. Set up collaborative postgraduate programmes with other Institutions

RESULT		Model Master, PhD and Post-Doctoral fellowships programmes as well as mentorship of staff and postgraduate supervisors in Insect Science for Food and Feed								
ACTIVITY	3.1. Set	up collabora	tive postgra	aduate prog	rammes w	ith other I	nstitution	S		
OUTPUT	of progr	Internationally modelled postgraduate programmes: The centre will collaborate in delivery of programs through formal lectures, open discussions, group work, assigned readings, tests, and examinations								
OUTPUT INDICATOR: sharing	Research	organization	s and equip	oment	SOURCE OF VERIFICATION: MOU signed, number of postgraduate students in other institutions					
IMPLEMENTATION MILESTONES	16 stude	ents involved	l in postgra	duate progra	ammes by	Y2				
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center I	Center Director & Principal Investigator/DCD								
DURATION: 2 Years		Commencer	ment: 3 rd Qt	tr Y1	Con	pletion: 6 th Qtr Y2				
PRIMARY CONSTITUE and JOOUST	ENTS: IUC	CEA, GoK	PARTIO	CIPANTS: J	OOUST-	ACE Team	and Part	tners		
ASSUMPTIONS Co	llaborativ	e postgradua	ate program	mes will be	supporte	d by all par	ticipants/	partners		
FINANCIAL IMPLICATIONS	Bud	lget from JO	OUST-AC	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total		
Accommodation days), consumal certificates, prep training material		5,000	0	0	0		10,000			
TOTALS		5,000	5,000	0	0	0		10,000		

Table 10.26:

Key Activity:

Time Frame:

Detailed Activity Sheet (3.2)3.0. Attracting regional faculty and students.
1st Qtr Y1 -16th Qtr Y4
3.2. Set up structures for student and staff support **Sub-Activity:**

RESULT	Enablin	g environm	ent for cutti	ng edge rese	arch					
ACTIVITY	3.2. Set	up structure	es for studer	nt and staff s	uppor	t				
OUTPUT	number	Improved research Infrastructure: To build research infrastructure that will attract high number of regional and international faculty and high student enrolment in food security in the region								
OUTPUT INDICATOR: and equipment	3.2. Avail	ability of ed	quipped labs	s, working sp	pace	SOURCE OF VERIFICATION: Number of state-of-the-art teaching laboratories Number of state of the art laboratories				
IMPLEMENTATION MILESTONES										
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center I	Center Director & Principal Investigator/DCD								
DURATION: 3 Years		Commence	ement: 1 st Qt	tr Y1	(Completion:16 th Qtr Y4				
PRIMARY CONSTITUE and JOOUST	ENTS: IUC	CEA, GoK	PARTIO	CIPANTS: J	OOU	ST-ACE T	Team and P	artners		
ASSUMPTIONS	etting up st	tructures for	students an	nd staff supp	ort wi	ll be suppo	orted all par	rtners		
FINANCIAL IMPLICATIONS	Buc	lget from JC	OOUST-AC	E (USD)						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Q	tr		Total		
1 Office Block/confacility	nference	40,000	60,000					100,000		
2 Guest house (20 postgraduates)										
TOTALS		40,000	60,000					100,000		

Table 10. 27:

Key Activity:

Time Frame:

Detailed Activity Sheet (3.3)3.0. Attracting regional faculty and students.

2nd Qtr Y1 - 20th QtrY5

3.3. Establish staff/student regional mentorship programme and regional working **Sub-Activity:**

groups

RESULT	Enhanced	Enhanced regional mentorship, training and research programmes									
ACTIVITY	3.3. Establ	lish staff/s	tudent regi	onal mentors	ship p	rogramme a	and regional working gro	ups:			
OUTPUT							ntific leadership in sustai ll and regional developm				
OUTPUT INDICATOR research collaboration	: 3.3. Number	of mento	rship progr	ammes and	new		OF VERIFICATION: f strategic working group	os			
IMPLEMENTATION MILESTONES	3.3. Desig	n and imp	lement mei	ntorship prog	gramn	nes (Consult	tancy) by 20 th Qtr -Y5				
PROCUREMENT	N/A	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	Center Director & Principal Investigator/DCD									
DURATION: 5 Years	DURATION: 5 Years Commencement: 2 nd – Qtr Y1 Completion: 20 th Qtr Y5										
PRIMARY CONSTITUTE and JOOUST	ENTS: IUCE	A, GoK	PARTIO	CIPANTS: J	OOU	ST-ACE Te	am and Partners				
ASSUMPTIONS	Formation of s	trategic w	orking grou	ups/teams wi	ill be s	supported by	y all participants/partners	S			
FINANCIAL IMPLICATIONS	Budge	et from JO	OUST-AC	E (USD)							
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th	Qtr	Total				
1 Consultancy			2,000				2,000				
2 Travel; subsiste honoraria	ence and			4,000			4,000				
3 Language supp	ort				4,0	000	4,000				
TOTALS			2,000	4,000	4,0	000	10,000				

Table 10. 28

Detailed Activity Sheet (3.4) 3.0. Attracting regional faculty and students. 2^{nd} Qtr Y1 - 20^{th} Qtr Y5 **Key Activity:**

Time Frame:

3.4. Develop partnerships with industry, research organization for staff and **Sub-Activity:**

equipment sharing

RESULT		Enhanced periodical staff exchange programs and development of partnership in the teaching and research laboratories										
ACTIVITY		3.4. Develop partnerships with industry, research organization for staff and equipment sharing										
OUTPUT	Enhanced knowledge base in insect in insect science and technology. The center will establish a strong partnership to promote and expand translational science, and outreach of research outputs to provide an access for commercialization research outputs.											
OUTPUT INDICATOR: Strong partnership to promote and expand translational science established SOURCE OF VERIFICATION: Number of industries/research organization												
IMPLEMENTATION MILESTONES	DN Develop partnership for staff and equipment sharing -Y5											
PROCUREMENT	N/A											
RESPONSIBILITY FOR IMPLEMENTATION	Center	Director & Pi	rincipal In	vestigator	/DCD							
DURATION: 5 Years		Commencer	nent: 2 nd	Qtr Y1		Completion: 20) th Qtr Y5					
PRIMARY CONSTITUE	ENTS:		PART	ICIPANTS	S:							
		ent of partners			esearch	h organization fo	r staff and equipment					
FINANCIAL IMPLICATIONS	Ві	ıdget from JO	OUST-AC	CE (USD)								
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qt	tr	Total					
Travel; subsister fee; (Costs cove research)			2,000	3,000	3,000	0	8,000					
TOTALS							8,000					

Table 10.29: Detailed Activity Sheet (4.1)

Key Activity: 4.0. Plan for national, regional and international academic partners and

collaborations.

Time Frame: 2nd, 5th, 8th, 11th, 14th, 17th &20th Qtrs Y1-Y5

Sub-Activity: 4.1. Inception meeting and workshops to form strategic working groups for

collaborative teaching and research

RESULT	Integrated l	arge scale interd on with Internation	isciplinary p onal Academ	rograms to nic Partners.	intensify	sharing and	research					
ACTIVITY	4.1. Inception teaching	4.1. Inception meeting and workshops to form strategic working groups for collaborative eaching										
OUTPUT	4.1. Enhance theindustry	eed quality and q	uantity of res	search in in	sect for f	foods and feed	ds relevant to					
OUTPUT INDICATO and seminars held; re			onferences			ERIFICATION: conference	ON: Inception report					
IMPLEMENTATIO N MILESTONES Honoraria, accommodation, travel (5 days), workshop consumables, certificates, preparation of workshop materials												
PROCUREMENT	N/A											
RESPONSIBILITY FOR IMPLEMENTATIO N	T											
DURATION: 5 Years	Comm	encement: 2 nd Q	etr Y1	Completion:	20 th Qtr	Y5						
PRIMARY CONSTI IUCEA, GoK and JO		PARTICI	PANTS: JO	OUST-ACE	E Team a	nd Partners						
ASSUMPTIO FO	rmation of stra	tegic working gr	oups for col	laborative to	eaching v	will be suppo	rted by all partners					
FINANCIAL IMPLICATIONS	Budget fro	om JOOUST-AC	E (USD)									
Budget Line Analysis	1 st	Qtr 2 nd Qtr	3 rd Qtr	4 th Qtr			Total					
Honoraria, accommodati travel,worksh consumables, certificates		10,000	10,000	7,200	0		27,200					
TOTALS		10,000	10,000	7,200			27,200					

Table 10.30: Detailed Activity Sheet (4.2)

4.0. Plan for national, regional and international academic partners and **Key Activity:**

collaborations.

Time Frame:

6th Qtr Y2 -20th Qtr Y5 4.2. Institutionalize faculty exchange programmes **Sub-Activity:**

RESULT	Improved	staff capacity in kn	owledge an	d skills	in research and p	publications						
ACTIVITY	4.2. Institu	4.2. Institutionalize faculty exchange programmes										
OUTPUT	: travel, ac	4.2. Efficient and effective implementation of teaching, learning and processes. Faculty (5) : travel, accommodation and stipends per year (2 faculty/yr for 3 months @Ksh 600,000.00/person)										
OUTPUT INDICATOR: 7.2. Academic improved knowledge and skills in research SOURCE OF VERIFICATION: Re of skills audit												
IMPLEMENTATION MILESTONES	4.2. Five fa	4.2. Five faculty participate in exchange programmes by Y5										
PROCUREMENT	N/A											
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	Center Director & Principal Investigator/DCD										
DURATION: 4 Years	Co	ommencement: 6 th	Qtr Y2		Completion: 20 th	Qtr Y5						
PRIMARY CONSTITUE and JOOUST	ENTS: IUCE	A, GoK PART	TICIPANTS	: JOOU	ST-ACE Team a	and Partners						
ASSUMPTIONS	1 participants	will be cooperative	e for effecti	ve mon	itoring and evalu	ation						
FINANCIAL IMPLICATIONS	Budge	t from JOOUST-A	CE (USD)									
Budget Line Analysis												
Faculty (5) /yr for months @Ksh 600,000.00/perso for competitive §	on). Apply											
TOTALS						0						

Table 10.31 Detailed Activity Sheet (4.3)

4.0. Plan for national, regional and international academic partners and **Key Activity:**

collaborations.

Time Frame:

6th Qtr Y2 -20th Qtr Y5
4.3. Establish and publish a high impact peer reviewed journal in insects as food **Sub-Activity:**

and feeds

RESULT	Enhan	ced platform fo	or research	publications	S							
ACTIVITY	4.3. Es	4.3. Establish and publish a high impact peer reviewed journal in insects as food and feeds										
OUTPUT	Registe house	Register a journal name; set up an Editorial Board; signing a contract with a publishing house										
OUTPUT INDICATOR: 4.3.One peer-reviewed journal in Insect Science SOURCE OF VERIFICATION: Contract document; Registered name												
IMPLEMENTATION MILESTONES	4.3. Pu	4.3. Publish one peer-reviewed journal in Insect Science by Y3										
PROCUREMENT	N/A	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD											
DURATION: 4 Years		Commencem	ent: 6 th Q	tr Y2		Completion: 20 th Qtr Y5						
PRIMARY CONSTITUE and JOOUST	NTS: IU	JCEA, GoK	PARTI	CIPANTS: J	JOO	UST-ACE Team and Partners						
ASSUMPTIONS	l particip	ants will be co	operative	for effective	moi	nitoring and evaluation						
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)											
Budget Line Analysis	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$											
1						0						
TOTALS						0						

Table 10. 32: Detailed Activity Sheet (4.4)

4.0. Plan for national, regional and international academic partners and **Key Activity:**

collaborations. 4th Qtr Y1 - 20th Qtr Y5 **Time Frame:**

4.4. Set up collaborative postgraduate, postdoctoral studies and fellowship **Sub-Activity:**

Programmes

RESULT	Enhanced research infrastructure sharing; sustainable knowledge and technology transfer and benchmarking of international accreditation of programs										
ACTIVITY	4.4. Set up collaborative postgraduate, postdoctoral studies and fellowship programmes										
OUTPUT	Enhanced quality and quantity of research in insect for foods and feeds relevant to the industry.										
	4. Opportunities for visiting scholars, s, staff and student exchange SOURCE OF VERIFICATION: Number of new research collaborations, Number of student scholarships, Number of staff research grants										
IMPLEMENTATION MILESTONES	Integrate large scale interdisciplinary programs to intensify sharing and research collaboration by Y5										
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD										
DURATION: 5 Years	Commencement: 4 rd Qtr Y1 Completion: 20 th Qtr Y5										
PRIMARY CONSTITUE and JOOUST	NTS: IUCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners										
ASSUMPTIONS	participants will be cooperative for effective monitoring and evaluation										
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)										
Budget Line Analysis	$=$ $1^{st}Qtr$ $2^{nd}Qtr$ $3^{rd}Qtr$ $4^{th}Qtr$ $Total$										
Travel and substallowance; hono (Covered under	arium										
TOTALS											

Table 10.33: Detailed Activity Sheet (4.5)

Key Activity: 4.0. Plan for national, regional and international academic partners and

collaborations.

Time Frame: 1st Qtr Y1

Sub-Activity: 4.5 Schedule a launching and inception workshop with partners

RESULT		large scale inter- ion with Internat				sharing	g and rese	earch						
ACTIVITY	4.5. To for	4.5. To form strong working teams for collaborative research and teaching												
OUTPUT	4.5. Enhan industry.	4.5. Enhanced quality and quantity of research in insects for foods and feeds relevant to the industry.												
OUTPUT INDICATOR: and seminars held; resear			nferences		SOURCE Inception report			TION: t; conference						
IMPLEMENTATION Honoraria, accommodation, travel (5 days), workshop consumables, certificates, preparation of workshop materials														
PROCUREMENT	N/A													
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD													
DURATION: 1 Qtr Y1	Co	ommencement: 1	st Qtrs Y1		Completion:	1 st Qtr	r Y1							
PRIMARY CONSTITUE	ENTS: IUCE	A, GoK PA	RTICIPAN	TS: JOOI	UST-ACE Te	eam and	d Partners	s						
II I	ormation of stragger	trategic working	groups for o	collaborat	ive teaching	will be	supporte	ed by all						
FINANCIAL IMPLICATIONS	Budge	t from JOOUST	-ACE (USD)										
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qt			Total						
Honoraria, accommodation, travel, workshop consumables, ce		27,400	0	0	0	0		27,400						
TOTALS								27,400						

Table 10.34: Detailed Activity Sheet (4.6)

Key Activity: 4.0. Plan for national, regional and international academic partners and

Time Frame:

collaborations.

3rd Qtr Y1 – 20th Qtr Y20

4.6 Participation in 2 joint regional ACE II Meetings **Sub-Activity:**

RESULT		Integrated large scale interdisciplinary programs to intensify sharing and research collaboration with International Academic Partners.									
ACTIVITY	4.6. Incep teaching	4.6. Inception meeting and workshops to form strategic working groups for collaborative teaching									
OUTPUT	4.6. Enhar	4.6. Enhanced quality and quantity of research in insects for foods and feeds relevant to the industry.									
OUTPUT INDICATOR: International workshops, conferences and seminars held; research infrastructure sharing. SOURCE OF VERIFICATION: Inception workshop report; conference report											
IMPLEMENTATION MILESTONES	Honoraria, accommodation, travel (5 days), workshop consumables, certificates, preparation of workshop materials										
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	FOR										
DURATION: 5 Years	C	ommenceme	ent: 1 st Qtr	· Y1	(Completion:	20 th Qtr Y	5			
PRIMARY CONSTITUE and JOOUST	ENTS: IUCE	EA, GoK	PARTIC	IPANTS:	JOOUS	T-ACE Tea	m and Part	ners			
	ormation of s	strategic wor	king grou	ps for coll	laborativ	ve teaching v	vill be supp	ported by all			
FINANCIAL IMPLICATIONS	Budge	et from JOO	UST-ACE	E (USD)							
Budget Line Analysis	-	1 st Qtr	2 nd Q tr	3 rd Qtr	4 th Qtr			Total			
Honoraria, accommodation, travel,workshop consumables, ce			0	2,500	2,500	0		5,000			
TOTALS								5,000			

Table 10.35: Detailed Activity Sheet (5.1)

5.0. Plan for management, governance 1st -20th Qtr Y1 – Y5 **Key Activity:**

Time Frame:

5.1. Incorporate Management Information System (MIS) for implementing **Sub-Activity:**

Centre's activities including a Grant Management System

RESULT		Promote sharing of information among internal and external partners to ensure efficiency and effectiveness in data management									
ACTIVITY		5.1. Incorporate Management Information System (MIS) for implementing Centre's activities including a Grant Management System									
OUTPUT	Effective a	nd efficie	nt service	delivery							
OUTPUT INDICATOR: learning, examinations ar			admissior	s, teachin	g and	Activitie	E OF VERII es on Enterpr g (ERP) softv	rise Resource			
IMPLEMENTATION MILESTONES	5.1. Manag	gement Inf	formation	System (N	IIS) fu	lly incorpor	ated in the C	Centre's activities by			
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center Dire	Center Director & Principal Investigator/DCD									
DURATION: 5 Yrs	Co	ommencen	nent: 1 st Q	etr Y1		Completio	n: 20 th Qtr Y	75			
PRIMARY CONSTITUE and JOOUST	ENTS: IUCE	A, GoK	PART	ICIPANTS	S: JOO	UST-ACE T	Γeam and Pa	rtners			
	1. Incorporati pported by al			Information	on Syst	tem (MIS) ir	nto the centre	e's activities will be			
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)										
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Q	tr		Total			
Procure and imp Grant Managem		2,000						2,000			
TOTALS		2,000						2,000			

Table 10. 36: Detailed Activity Sheet (5.2)

5.0. Plan for management, governance 1st -20th Qtr Y1 – Y5 **Key Activity:**

Time Frame:

Sub-Activity: 5.2. Adopt best practices in Financial Management and Procurement

RESULT	A sound fi	inancial sys	stem that	meets all	interna	ational best practices						
ACTIVITY	5.2. Adopt	5.2. Adopt best practices in Financial Management and Procurement										
OUTPUT		5.2. Annual financial reports submitted WACCI will prepare and submit 2 financial reports by June 30, 2015. The financial										
OUTPUT INDICATOR:	5.2. Two bi-	annual fina	ncial rep	orts		SOURCE OF VERIFICATION: ACE financial reports						
IMPLEMENTATION MILESTONES	5.2. Capac Qtrs	5.2. Capacity building for best practices in financial management and procurement by 20 th Qtrs										
PROCUREMENT	N/A	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD											
DURATION: 5 Yrs	Co	ommencem	nent: 1 st Q	tr Y1		Completion: 20 th Qtr Y5						
PRIMARY CONSTITUE GoK and IUCEA	ENTS: JOOU	JST,	ST, PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSUMPTIONS	l participants	s will be co	operative	for effec	tive mo	onitoring and evaluation						
FINANCIAL IMPLICATIONS	Budge	et from JOC	OUST-AC	CE (USD)								
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Q	etr Total						
Capacity buildin 10@15,000	g costs for	5,000	5,000	3,000	2,00	00 [15,000						
TOTALS		5,000	5,000	3,000	2,00	00						

Table 10.37:

Key Activity:

Time Frame:

Detailed Activity Sheet (5.3)5.0. Plan for management, governance 1st -20th Qtr Y1 – Y5
5.3. Establish sound fiduciary practices **Sub-Activity:**

RESULT	Γ	A soun	d financial sy	stem that	meets all	internati	onal best pra	ctices						
ACTIVI	TY	5.3. Est	tablish sound	fiduciary	practices									
OUTPU	Т		5.3. Functioning internal audit oversight: ACE will engage the JOOUST internal audit unit in all financial procedures and transactions.											
	T INDICATOR:5 transactions and								FICATION: 5.3 Audit Reports					
IMPLEN MILEST	MENTATION CONES	5.3 Inte	5.3 Internal audit oversight ensured by 31.12.2020											
PROCUI	REMENT	JOOUS	JOOUST Internal Audit will follow due process in auditing ACE											
FOR	NSIBILITY MENTATION	Center Director & Principal Investigator/DCD												
DURAT	ION: 5 Yrs		Commencem	nent: 1 st Q	etr Y1		Completion:	20 th Qtr Y	75					
PRIMAR and JOO	RY CONSTITUE UST	NTS: IU	JCEA, GoK	PARTI Partner		S: JOOU	JST Audit, JO	OOUST-A	CE Team and					
ASSUM	PTIONS JO	OUST I	nternal Audit	Directora	te will foll	low due	diligence at	all stages o	of the audit					
FINANC IMPLIC	CIAL ATIONS	Bu	dget from JOC	OUST-AC	CE (USD)									
Budget I Analysis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	5 th Qtr	6 th Qtr	Total					
	Stakeholders trai workshops	ning	1,500	3,000	1,500	1,500			7,500					
TOTALS	TOTALS 1,500 3,000 1,500 7,500 7,500													

Table 10.38:

Detailed Activity Sheet (5.4)5.0. Plan for management, governance 3rd, 8th, &13th Qtrs Y1-Y3
5.4. Procure and maintain vehicles **Key Activity:**

Time Frame:

Sub-Activity:

RESU	ULT	An effect	ive means o	f travel prov	ided for stud	dent's vi	sit to resea	arch sites				
ACTI	IVITY	5.4. Procu	are and main	tain vehicle	s							
OUT	PUT							arch sites. car] will be ents' travels to research				
OUT	PUT INDICATOR:	3vehicles p	rocured and	maintained	by Y5	F VERIFICATION: 5.4. Document, Registration						
	LEMENTATION ESTONES	Procurement of car by Y1										
PROG	CUREMENT	N/A										
FOR	PONSIBILITY LEMENTATION	Center Di	Center Director & Principal Investigator/DCD									
DUR	ATION: Y1 – Y3	C	Commencem	ent: 3 rd Qtr	Y1	Comp	letion: 13 th	^h Qtr Y3				
PRIM	IARY CONSTITUE	ENTS: ACE	-JOOUST	PARTICIE	PANTS: JOO	ANTS: JOOUST Procurement Unit,						
ASSU	JMPTIONS JC	OUST Prod	curement Un	nit will facili	tate the entir	e procui	rement pro	cess				
	NCIAL LICATIONS	Budg	et from JOO	OUST-ACE ((USD)							
Budg Analy	et Line ysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Q tr		Total				
1	Procure a vehicl cabin pick-up)	e [double			39,500			39,500				
2	Maintenance of vehicles (fuel an servicing)				500			500				
TOTA	ALS				40,000			40,000				

Table 10.39

Key Activity:

Detailed Activity Sheet (5.5)5.0. Plan for management, governance
1st -20th Qtr Y1-Y5
5.5. Centre operations Time Frame: **Sub-Activity**

RES	ULT	Effective	and efficien	nt operation o	of centres a	ctivity							
ACT	TIVITY	5.5. Centr	5.5. Centre operations										
OUT	PUT	Functioni	Functioning ACE under the university										
OUT	PUT INDICATOR:	Accessorie		OF VERIFICATION: accessories; stationary;									
IMPLEMENTATION MILESTONES 5.5. Centre staff recruited and trained by 31.09.2019													
PRO	CUREMENT	N/A											
FOR	RESPONSIBILITY FOR IMPLEMENTATION Center Director & Principal Investigator/DCD												
DUR	ATION: 5 Years	C	Commencem	ent: 1 st Qtr Y	7 1	Completion	: 20 th Qtr Y5						
PRIN	MARY CONSTITUE	ENTS: JOOU	UST ACE	PARTICIE	PANTS: As	ssociate faculty,	JOOUST						
ASS	UMPTIONS JO	OUST will	be supporti	ve at all stage	es of the pr	rocess							
	ANCIAL LICATIONS	Budg	et from JOC	OUST-ACE (USD)								
Budg Anal	get Line ysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total						
1	Stationeries & Communication		3,500	2,500	2,500	2,500	11,000						
2	Computer accessories/main	itenance	3,500	2,500	2,500	2,500	11,000						
3	Hospitality & of maintenance	fice	202	500	500	500	1702						
тот	ALS		7,202	5,500	5,500	5,500	23,702						

Table 10.40

Detailed Activity Sheet (5.6)5.0. Plan for management, governance.
1st -20th Qtr Y1-Y5
5.6. Centre Staff **Key Activity:**

Time Frame: **Sub-Activity:**

RESULT	Centre staf	Centre staff recruited and designated incentive structure for ACE						
ACTIVITY	5.6. Recrui	5.6. Recruit and train Centre staff						
OUTPUT	5.6. Centre	staff recru	ited, trained	and assigne	d duties.			
OUTPUT INDICATOR	5.6 Four cen	cruited and t	rained		SOURCE OF VERIFICATION: Staff records and training report			
IMPLEMENTATION MILESTONES	TION 5.6 Salaries for Centre staff up to 20 th Qtr Y5							
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD							
DURATION: 5 Years	Со	mmencem	ent: 1 st Qtr Y	1	Completio	Completion: 20 th Qtr Y5		
PRIMARY CONSTITU ACE	ENTS: JOOU	IST	PARTICIP	ANTS: Ass	ociate faculty,	JOOUS	Γ	
ASSUMPTIONS	OOUST will b	e supporti	ve at all stage	es of the pro	ocess			
FINANCIAL IMPLICATIONS	Budget	from JOC	OUST-ACE (USD)				
Budget Line Analysis	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total		
Travel and train salaries and ben advertisement		49,500	49,500	49,500		148,811		
TOTALS		27,311	49,500	49,500	49,500		148,811	

Table 10.41 : Detailed Activity Sheet (5.7)

: 5.0. Plan for management and governance : 1st -4th Qtr Y1 **Key Activity**

Time Frame

: 5.7. Put in place governance framework, financial management, administrative, procurement, monitoring and evaluation procedures and systems **Sub-Activity**

	procurer	nent, mom	toring and	evaruation j	procedures	s and systems			
RESU	JLT		Availability of a legal framework for carrying out the three ACE objectives for Sustainable Use of Insects as Food and Feed						
АСТГ	VITY		5.7. Put in place governance framework, financial management, administrative, procurement, monitoring and evaluation procedures and systems						
OUTP	PUT	5.7. Review Committee established; Management and Administrative team established; ACE account opened; Financial Management and Procurement procedures formulated.							
Organ	PUT INDICATOR: ogram developed; an AC	a Financial	Managemen	t and a Procu		Minutes of R organogram; details; Final	SOURCE OF VERIFICATION: 5.7 Minutes of RC meetings; ACE organogram; ACE project bank account details; Financial Management and Procurement manuals		
	EMENTATION STONES		lish governa es and systen		ork, financi	al management, ad	ministrative and procurement		
PROC	CUREMENT	N/A							
FOR	ESPONSIBILITY OR MPLEMENTATION Center Director & Principal Investigator/DCD								
DURA	ATION: 1 year	С	ommencem(ommencement: 1 st Qtr Y1 Completion: 4 th Qtr Y1					
	ARY CONSTITUE	ENTS: IUC	EA, GoK	PARTICIPANTS: JOOUST-ACE Team and Partners					
ASSU			ts will be co		effective, §	governance, financ	ial management, and		
	NCIAL ICATIONS	Budg	et from JOO	UST-ACE (USD)				
Budge Analy	et Line sis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total		
1	Review committ	ee	5,000				5,000		
2	Open ACE Bank	Account	100				100		
3	Review & devel- Financial manag Procurement pro	ement and	7,450	5,000	5,000	5,000	22,450		
4	Develop monitor evaluation processystems		7,450	5,000	5,000	5,000	22,450		
TOTA	ALS		20,000	10,000	10,000	10,000	50,000		

: Detailed Activity Sheet (5.8) **Table 10.42**

Key Activity
Time Frame
Sub-Activity
Since (S.6)

1 st -20th Qtr Y1-Y5

1 5.8. Schedule and hold ACE implementation team meetings

RESU	ULT		A transparent project implementation process and a solid platform for taking corrective measures against set objectives							
ACTI	IVITY	5.8. Schedule a	5.8. Schedule and hold ACE implementation team meetings							
OUTI	PUT		5.8. Minutes of meetings. Forty implementation team meetings will be held between Qtr 1 and 4 in the first year of the project							
	PUT INDICATOR: ngs held per year	5.8. Forty six (4	6) ACE im	plementation	on	SOURCE OF VERIFICATION: 5.8 Record of minutes				
	LEMENTATION ESTONES	5.8 230 ACE in	mplementat	ion meetin	gs held by	Y5				
PROC	CUREMENT	N/A								
FOR	PONSIBILITY LEMENTATION	Center Director & Principal Investigator/DCD								
DUR	ATION: 5 Years	Comme	encement:	ncement: 1st Qtrs Y1 Completion: 20th Qtr Y5						
	IARY CONSTITU OOUST	ENTS: IUCEA,	GoK PARTICIPANTS: JOOUST-ACE Partners							
ASSU	JMPTIONS Al	l participants wil	l be cooper	ative for ef	fective AC	CE implementation				
	NCIAL LICATIONS	Budget from	m JOOUST	Γ-ACE (US	D)					
	Budget Line Analysis			2 nd Qtr	3 rd Qtr	4 th Qtr	Total			
1	Centre meetings	S	100	100	100	4,100	4,400			
2	Centre Advisory (15 pple, 1 meet tickets (15 peop	ting/yr, Return				20,000	20,000			
TOTA	ALS		100	100	100	24,100	24,400			

RESULT	A transparent basis for measuring actual performance against set objectives and monitoring for continues progress and improvement							
ACTIVITY	5.9. Sched	5.9. Schedule and hold ACE M&E meetings						
OUTPUT	Y5 to mo	5.9. Hold internal and external M&E meetings between 4 th Qtr Y1 and December 20 th Qtr Y5 to monitor adherence to set objectives, and monitor performance for continuous progress and improvement.						
OUTPUT INDICATOR: held	5.9. Internal	and Exter	rnal ACE l	M&E meeti	ngs		OF VERIFICATION: 5.9. minutes, M&E Fact Sheet	
IMPLEMENTATION MILESTONES	5.9.Condu final) by Y		rnal M&E	(quarterly)	and Co	nduct 2 exte	ernal M &E (mid-term and	
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION Center Director & Principal Investigator/DCD								
DURATION: 5 Years	C	ommencei	ment: 1 st Q	tr Y1	(Completion: 20 th Qtr Y5		
PRIMARY CONSTITU	ENTS: IUCE	A, GoK	PART	ICIPANTS:	JOOU	JST-ACE T	eam and Partners	
ASSUMPTIONS	ll participant	s will be c	cooperative	for effective	ve moni	itoring and e	evaluation	
FINANCIAL IMPLICATIONS	Budge	et from JO	OUST-AC	CE (USD)				
Budget Line Analysis	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qt	t	Total		
Conduct 10 Inte (quarterly)	ernal M&E	5000	5000	5000	5000)	20,000	
	(mid- term and final for a			12000			12,000	
TOTALS	5000	5000	172000	5000)	32,000		

Table 10.44 : Detailed Activity Sheet (5.10.)

Key Activity : 5.0. Plan for management and governance

Time Frame :: 1-20 Qtr Y1-Y5

Sub-Activity: 5.10. Design, host and manage a custom website for the centre

RESULT	Strengthened ICT infrastructure and software for teaching, learning and research and New e-learning tools deployed.						
ACTIVITY	5.10. Design, host and	l manage a custom	websi	ite for the centre			
OUTPUT	5.10. Enhanced comm to ICT resources for te			haring and learning activities. Accessibility ch and dissemination			
OUTPUT INDICATOR: Availability of custom website with elearning tools				SOURCE OF VERIFICATION: Number of computers and accessories procured; Broad band connectivity; Number of programs on ICT platform			
IMPLEMENTATION MILESTONES	5.10. Custom website	designed and ICT	infrast	structure established by 31.12.2020			
PROCUREMENT	N/A						
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Prin	ncipal Investigator	:/DCD				
DURATION: 5 Years	Commenceme	ent: 1 st Qtr Y1	Completion: 20 th Qtr Y5				
PRIMARY CONSTITUE and JOOUST	ENTS: IUCEA, GoK	PARTICIPANT	S: JOC	OUST-ACE Team and Partners			
ASSUMPTIONS Es	tablishment of ICT reso	ources will be supp	orted l	by all participants/partners			
FINANCIAL IMPLICATIONS	Budget from JOO	UST-ACE (USD)					
Budget Line Analysis	1 st Qtr	2 nd Qtr 3 rd Qtr	4 th Qt	tr Total			
Design and deve website (50)			500				
2 Operationalize to website	he 1,500	1,000 1,000	1,000	4,500			
TOTALS				5,000			

Table 10.45 : Detailed Activity Sheet (5.11)

Key Activity : 5.0. Plan for management and governance

Time Frame : 1-20 Qtr Y1-Y5

Sub-Activity: 5.11. Promote the Centre (Marketing)

RES	ULT	Local,	Local, regional and international recognition							
ACT	IVITY	5.11 P	5.11 Promote the Centre							
OUT	PUT	5.11 E	nhanced infor	mation sh	aring in In	sect scie	ence and sustainability of the centre			
OUT	PUT INDICATOR:	Promoti	on materials o	n the webs	site centre		SOURCE OF VERIFICATION: Brochures			
	LEMENTATION ESTONES	The ce	The centre promoted by Y5							
PRO	CUREMENT	N/A								
FOR	PONSIBILITY LEMENTATION	Center	Center Director & Principal Investigator/DCD							
DURATION: 5 Years Comm				ment: 1 st Q	trs Y1		Completion: 20 th Qtrs Y5			
	ARY CONSTITUE OOUST	ENTS: IU	JCEA, GoK	PART	PARTICIPANTS: JOOUST-ACE Team and Partners					
ASSU	UMPTIONS Pro	omotion	of the centre	will be sup	ported by	all parti	ticipants/partners			
	ANCIAL LICATIONS	Ві	ıdget from JO	OUST-AC	CE (USD)					
Budget Line Analysis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	r Total			
1	Develop marketi strategy	ng	2,500				2,500			
2	Develop promoti materials	notional 2,500 1,000 1,000 1,000		1,000	5,500					
TOT	ALS		5,000	1,000	1,000	1,000	8,000			

Table 10.46: Detailed Activity Sheet 6.1

Key Activity: 6.0. Plan for management, governance and sustainability.

Time Frame: 1st -20th Qtr Y1 -Y5

Sub-Activity: 6.1. Generate revenue from internal and external sources (student fees,

government subsidies, consultancies, income generating activities from selling

products and services from centre activities)

RESULT	Sustained 0	Sustained Centre of Excellence							
ACTIVITY	6.1 Genera	6.1 Generate revenue from internal and external sources							
OUTPUT		6.1. Enhanced capacity for sustainability of the center: Incubation centers, enterprises and generated revenue							
OUTPUT INDICATOR: 6.1. Revenue generated internally and externally				У	SOURCE OF VERIFICATION: Records of internally and externally generated revenue by the ACE				
IMPLEMENTATION MILESTONES	Amount of	revenue i	internally	and ex	ternally by	the ACE			
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 5 Years	Со	Commencement: 1 st Qtr Y1 Completion: 20 th Qtr Y5					· Y5		
PRIMARY CONSTITUTE and JOOUST	ENTS: IUCE	A, GoK	PART	ICIPAI	NTS: JOO	UST-ACE	E Team and I	Partners	
ASSUMPTIONS D	onors will buy	y into the	vision of .	JOOUS	ST-ACE.				
FINANCIAL IMPLICATIONS	Budget	from JO	OUST-AC	CE (US	D)				
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Q	tr 4 th Q	tr		Total	
1 Consultancies				1,50	0		1,500		
2 Fees				2,00	0		2,000		
3 Commercial tec	hnologies				1,00	0		1,000	
TOTALS					4,50	0		4,500	

Table 10.47: Detailed Activity Sheet (6.2)Key Activity: 6.0 Sustainability.Time Frame: 1st -20th Qtr Y1- Y5Sub-Activity: 6.2. Support faculty to submit three major grant applications

RES	ULT	Increased	Increased research in insect science and publications in recognized peer-reviewed journals						
ACT	IVITY	6.2. Grant	6.2. Grant proposals submitted						
OUT	PUT	also gain	6.2. This will add up to existing knowledge in the areas of insect science. The Centre will also gain international visibility as an African Centre of Excellence for contributing to the existing body of knowledge.						
	PUT INDICATOR: wed journals	6.2. 10 Rese	earch publi	cation per	year in po	eer	SOURCE OF VERIFICATION: Research Publications folder		
	LEMENTATION ESTONES	6.2. 40 res	6.2. 40 research publication by Y5						
PRO	CUREMENT	N/A							
FOR	PONSIBILITY LEMENTATION	Center Director & Principal Investigator/DCD							
DUR	ATION: 5years	ommencei	ment: 1 st Q	etr Y1		Completion: 20 th Qtr Y5			
	MARY CONSTITUE	ENTS: IUCI	EA, GoK	EA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners					
ASS	UMPTIONS	blication of	peer-revie	wed resea	rch findin	gs will t	be supported by all	participants/partners	
	ANCIAL LICATIONS	Budge	et from JO	OUST-AC	CE (USD)				
Budget Line Analysis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	r	Total	
1	Incentives for gr teams	Incentives for grant making teams		500	500	500		2,500	
2	Submission of g	grants 100 150 150 100 500					500		
ТОТ	ALS							3,000	

Table 10.48 :Detailed Activity Sheet (6.3)

Key Activity : 6.0 Sustainability. **Time Frame** : 1st -20th Qtr Y1-Y5

Sub-Activity : 6.3. Support PhD and MSc students to apply for small student grants from

international agencies to support their research, attendance & presentations at

meetings

RESULT	Student knowledge generation and transfer						
ACTIVITY	6.3. Support scientific conference presentations						
OUTPUT	Enhancing capacity building for students leading for improved knowledge and skills in research						
OUTPUT INDICATOR: research	6.3. Academic improved knowledge and skills in SOURCE OF VERIFICATION: Report of skills audit						
IMPLEMENTATION MILESTONES	6.3. Support staff and students' conference presentations by Y5						
PROCUREMENT	N/A						
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD						
DURATION: 5 years	Commencement: 1 st Qtr Y1 Completion: 20 th Qtr Y5						
PRIMARY CONSTITUE and JOOUST	ENTS: IUCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners						
ASSUMPTIONS	l participants will be cooperative for effective monitoring and evaluation						
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)						
Budget Line Analysis	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$						
1 Transport cost, r subsistence cost	egistration, 1,000 1,500 1,500 1,000 5,000 5,000						
TOTALS	1,000 1,500 1,500 1,000 5,000						