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 Agricultural Economists including the Project Director. In addition. a Social 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

Code	Priority Rank	Results/Activity/Task	Budget Est	imates (US	\$)Year 1
	(1 highest, 5 lowest)	(Expected output)	ACE leader	Partners	Total
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

Table 1: Overview of First Project Year

Code	Priority Rank	Results/Activity/Task	Budget Est	imates (USS	\$)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 – fee paying trainees	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
	2	2.10. Support scientific conference presentations 2.11 Develop insect technology incubation	5,600	12,400	18,000
	1 (1 highest,	and skills transfer hub	0 ACE	0	0
	5 lowest)	(Expected output)	leader	Partners	Total
Action Plan 3		3.0. Attracting regional faculty and students	116,400	11,600	12,8000
	1	3.1. Set up collaborative postgraduate1programmes with other Institutions		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 groups	6,000	4,000	10,000
	2	3.4. Develop partnerships with industry, research organization for staff and equipment	4,000	4,000	8,000

Code	Priority Rank	Results/Activity/Task	Budget Est	imates (US	\$)Year 1
	(1 highest, 5 lowest)	(Expected output)	ACE leader	Partners	Total
	5 lowest)	sharing	Icauci		I Utal
		Sharing			
	(1 highest,		ACE		
	5 lowest)	(Expected output)	leader	Partners	Total
		4.0 Plan for national, regional and			
Action		international academic partners and			
Plan 4		collaborations	34,180	25,420	59,600
		4.1. Inception meeting and workshops to form			
	1	strategic working groups for collaborative	10.000	17 200	27 200
	1	teaching and research 4.2. Institutionalize faculty exchange	10,000	17,200	27,200
	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,			
		postdoctoral studies and fellowship			
	1	programmes	0	0	0
		4.5. Schedule a launching and inception	10 100	0.000	AH (0.0
-	1	workshop with partners	19,180	8,220	27,400
	2	4.6. Participation in two (2) joint regional ACEII Meetings	5,000	0	5,000
	(1 highest,	ACEII Meetings	ACE	U	5,000
	5 lowest)	(Expected output)	leader	Partners	Total
Action Plan 5		5.0. Plan for management and governance	296,793	14,620	311,413
		5.1. Incorporate Management Information			
		System (MIS) for implementing Centre's			
	1	activities including a Grant Management	2 000	0	2 000
	1	System 5.2. Adopt best practices in Financial	2,000	0	2,000
	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
	1	5.5. Centre operations	23,702	0	23,702
	2	5.6. Centre staff	148,811	0	148,811
	2	5.7. Put in place governance framework,	140,011	•	140,011
		financial management, administrative,			
	1				
		procurement, monitoring and evaluation			
	1	procedures and systems	50,00	0	50,00
		procedures and systems 5.8. Schedule and hold implementation team			
	1	procedures and systems 5.8. Schedule and hold implementation team meetings	19,180	5,220	24,400
		procedures and systems5.8. Schedule and hold implementation team meetings5.9. Schedule and hold M&E meetings			
	1 3	procedures and systems5.8. Schedule and hold implementation team meetings5.9. Schedule and hold M&E meetings5.10. Design, host and manage a custom	19,180 25,000	5,220 7,000	24,400 32,000
	1 3 2	procedures and systems5.8. Schedule and hold implementation team meetings5.9. Schedule and hold M&E meetings5.10. Design, host and manage a custom website for the centre	19,180 25,000 5,000	5,220 7,000 0	24,400 32,000 5,000
	1 3 2 2	procedures and systems5.8. Schedule and hold implementation team meetings5.9. Schedule and hold M&E meetings5.10. Design, host and manage a custom	19,180 25,000 5,000 5,600	5,220 7,000	24,400 32,000
	1 3 2	procedures and systems5.8. Schedule and hold implementation team meetings5.9. Schedule and hold M&E meetings5.10. Design, host and manage a custom website for the centre	19,180 25,000 5,000	5,220 7,000 0	24,400 32,000 5,000
Action	1 3 2 2 (1 highest,	procedures and systems5.8. Schedule and hold implementation team meetings5.9. Schedule and hold M&E meetings5.10. Design, host and manage a custom website for the centre5.11. Promote the Centre (marketing)	19,180 25,000 5,000 5,600 ACE leader	5,220 7,000 0 2,400 Partners	24,400 32,000 5,000 8,000 Total
Action Plan 6	1 3 2 2 (1 highest,	procedures and systems 5.8. Schedule and hold implementation team meetings 5.9. Schedule and hold M&E meetings 5.10. Design, host and manage a custom website for the centre 5.11. Promote the Centre (marketing) (Expected output) 6.0 Sustainability	19,180 25,000 5,000 5,600 ACE	5,220 7,000 0 2,400	24,400 32,000 5,000 8,000
	1 3 2 2 (1 highest,	procedures and systems 5.8. Schedule and hold implementation team meetings 5.9. Schedule and hold M&E meetings 5.10. Design, host and manage a custom website for the centre 5.11. Promote the Centre (marketing) (Expected output) 6.0 Sustainability 6.1. Generate revenue from internal and	19,180 25,000 5,000 5,600 ACE leader	5,220 7,000 0 2,400 Partners	24,400 32,000 5,000 8,000 Total
	1 3 2 2 (1 highest,	procedures and systems 5.8. Schedule and hold implementation team meetings 5.9. Schedule and hold M&E meetings 5.10. Design, host and manage a custom website for the centre 5.11. Promote the Centre (marketing) (Expected output) 6.0 Sustainability	19,180 25,000 5,000 5,600 ACE leader	5,220 7,000 0 2,400 Partners	24,400 32,000 5,000 8,000 Total
	1 3 2 2 (1 highest,	procedures and systems 5.8. Schedule and hold implementation team meetings 5.9. Schedule and hold M&E meetings 5.10. Design, host and manage a custom website for the centre 5.11. Promote the Centre (marketing) (Expected output) 6.0 Sustainability 6.1. Generate revenue from internal and external sources (student fees, government	19,180 25,000 5,000 5,600 ACE leader	5,220 7,000 0 2,400 Partners	24,400 32,000 5,000 8,000 Total

Code	Priority Rank	Results/Activity/Task	Budget Estimates (US\$)Year 1					
	(1 highest,		ACE					
	5 lowest)	(Expected output)	leader	Partners	Total			
		6.2. Support faculty to submit three major						
	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			

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
Action Plan 1	1.0. Strengthen education capacity (excellence) and 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				1000	1000		2000				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											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	200	200					1,600

 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
	1.10. Develop content and convert for delivery by e- learning 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	1,570			3,770	3,7+0	5,152	5,152				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 workshops and seminars to broaden students' learning											
	experience 2.7. Develop and sign MoUs	320	320	320	320	320	320	320	320			2,560
	with partner institutions	600	600	600	600	600						3,000
	2.8. Attract, retain and retool faculty in areas relevant to the ACE	000	000	000	000	000						0
	2.9. Publish in peer reviewed journals			750	750	750			750	750	750	4,500
	2.10. Support scientific 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 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
	3.1. Set up collaborative postgraduate programmes with other Institutions			1,200	1,200	1,200						3,600
	3.2. Set up structures for 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 with industry, research organization for staff and equipment sharing	800	800	800	800	800						4,000
Action Plan 4	4.0 Plan for national, regional and international	5,084	5,084	5,084	5,084	5,084						25,420

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
	academic partners and collaborations											
	4.1. Inception meeting and workshops to form strategic working groups for collaborative teaching and research	3,440	3,440	3,440	3,440	3,440						17,200
	4.2. Institutionalize faculty exchange programmes											0
	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 (compone	Sigma Feeds (compone	
	(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)	nt total for Partners)	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)											0
	6.2. Support faculty to submit three major grant											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
	applications											
	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															
	YEAR 1			J	ZEA	AR 2	2	YI	EAI	R 3	Ϊ	EA	R 4	ļ	YEA	AR 5
1 1.0. Strengthen education capacity (excellence) and development impact	1	2	3 4	1	2	3	4	1	2	3 4	1	2	3	4 1	2	3 4
1.1 Develop new relevant multidisciplinary MSc and PhD food security curricula and regular reviews																
1.2 Benchmark and obtain accreditation for MSc and PhD food security curriculum																
1.3 Rehabilitate and upgrade teaching and learning facilities																
1.4 Set up a grants management scheme and allocate research funds																
1.5 Strengthen ICT infrastructure for teaching and learning																
1.6 Advertise and admit students into MSc and PhD programmes																
1.7 Offer required taught courses to MSc and PhD students																
1.8 Initiate and implement regional students exchanges to broaden learning experience																
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																
1.12 Broaden students' knowledge and skills through internship at advanced research institutions and industries																
1.13 Provide appropriate tools for people with disabilities to access learning and research																
2 2.0. Strengthen research capacity (excellence)	1	2	3 4	1	2	3	4	1	2	3 4	1	2	3	4 1	2	3 4
2.1 Scale up MSc and PhD research in key areas in insect science and food security																
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																
2.6 Conduct training workshops and seminars to broaden students' learning experience																
2.7 Develop and sign MoUs with partner institutions																
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	3 4

1	3.1 Set up collaborative postgraduate programmes with other Institutions											Τ	Τ	П	Τ		
	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						3	4	1 2	3	4	1 2	3	4	1 2	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	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																
	5.10 Design, host and manage a custom website for the centre																
	5.11 Promote the Centre (marketing)																
6	6.0 Sustainability	1	2	3	4 1	2	3	4	1 2	3	4	1 2	3	4	1 2	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

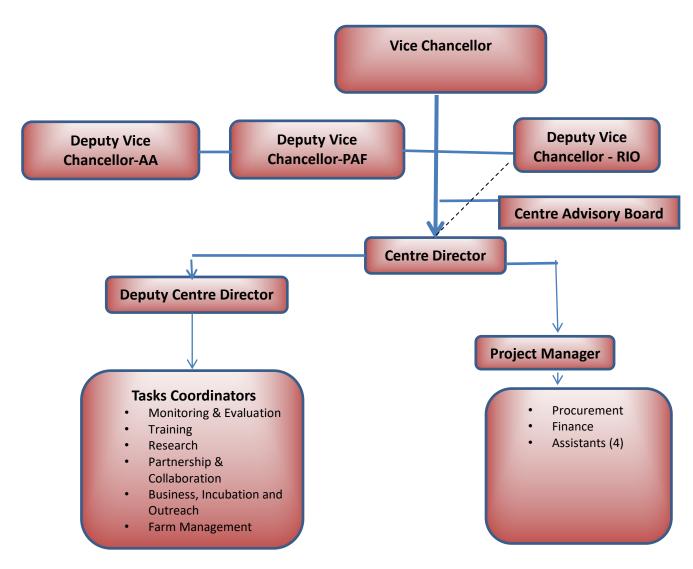


Figure 1: Centre organogram

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)

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
<i>To be appointed</i>		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
			-Answerable to the PI
<i>To be appointed</i>		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 -Manage exchange programmes.
			-Manage exchange programmes. -Answerable to the PI
To be appointed		Coordinator for	-Coordinate business and
from among		innovations and business	technology incubation, transfer
JOOUST staff		incubation	and commercialization of the
500051 siujj		meubation	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
sooosi siajj		c , uluulon	

Table 4: Overview of Core Project Team:

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) Monitoring Managing ICT Secretarial Driving 	 Answerable to the Project manager Perform duties as may be assigned according to their areas of specialities

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.

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

Table 6: Incentive System

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
		C C	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

Disbursement	Action to be Completed	Definition	Disbursement	IP Result/Activity/Task
Linked Indicators	_		Amounts1	contributing directly
(Can trigger			(expressed in	
maximum 6 million			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
		government and the World Ban		commencement of the
Total amount				ACE (1.1)
1,100,000	DLR#1.2: Development of the	Disbursed when detailed implementation plan of ACE is	DLR#1.2:	
(expressed in USD	Project Implementation Plan	approved by the ministry in charge of higher education	500,000	
equivalent)		as part of the Performance Agreement.		
DLI #2: Excellence	DLR# 2.12: 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	
research capacity and		given year. Achievement rates beyond 85% in any given	(100,000 per	
development impact		year triggers a 100% disbursement 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		

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

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\$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\$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\$85,000.

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
		 5,500 per female regional student. 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 Amountsı (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 regional 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 Amounts1	IP Result/Activity/Task contributing directly
(Can trigger			(expressed in	
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

Table 8. Project Development Objective (PDO): 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	Target Values					Frequency	Data Source/	Responsibility for Data	Definition	
Indicators	Measure	Dasenne	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	2	3	4	4 3	4 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)	
 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	5	10 3	15 4	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	
4. 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)	
2. 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	Raseline	Target Values					Frequency	Data Source/	Responsibility for Data	Definition	
Indicators	Measure	Dasenne	YR 1	YR 2	YR3	YR 4	YR5	rrequency	Methodology	Collection	Definition	
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 0	50,00 0	150,0 00	200,0 00	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 C	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 impact	481,400	481,400	481,400	481,400	481,400	2,407,000	40.12			
Action Plan 2: Strengthen research	401,400	-01,-00	401,400	401,400	401,400	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 and students	128,000	128,000	128,000	128,000	128,000	640,000	10.67			
Action Plan 4: Plan for national, regional	120,000	120,000	120,000	128,000	120,000	040,000	10.07			
and international academic partners and										
collaborations Action Plan 5: Plan for management &	59,600	20,000	19,000	19,000	19,000	136,600	2.28			
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

Table 10.1: Detailed Activity Sheet (1.1)Key Activity: 1.0. Strengthen education capacity (excellence) and development impactTime Frame: 2nd Qtr Y1 - 20th Qtr Y5Sub-Activity: 1.1. Develop new relevant multidisciplinary MSc and PhD food security curricula with
regular reviews

RESU	LT	Stu	Students equipped with requisite knowledge and skills										
ACTIV	/ITY		1.1. Develop new relevant multidisciplinary MSc and PhD food security curricula & regular reviews										
OUTP	UT	Scie Nut	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										
			d curricula establ for relevant indu		expose the	e	SOURCE ON Number of						
	EMENTATION STONES	1 M	Sc and 1PhD cu	irricula ir	n related a	reas deve	loped by 4th Q	etr, Y1					
PROC	UREMENT	N/A	1										
FOR	ONSIBILITY EMENTATION												
DURA	TION: 5 Years	Commence	ement: 2nd Qtr Y1 Completion: 20th Qtr Y5										
PRIMA and JO	ARY CONSTIT OUST	UENTS:	IUCEA, GoK	PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSUN	MPTIONS			vant multidisciplinary MSc and PhD food security curricula will be supported /partners and regular reviews									
FINAN IMPLI	ICIAL CATIONS	Budget from JC	OUST-A	ACE (USD))								
Budget Line Analysis				1stQtr	2ndQtr	3rdQtr	4thQtr			Total			
1 Develop MSc Food Security; MSc Entomology; and MSc Biotechnology					3,000	3,000	3,000			9,000			
2	2 Develop PhD food security curriculum				1000	1000	1000			3,000			
TOTA	LS				4000	4000	4000			12,000			

Table 10.2: Detailed Activity Sheet (1.2)

Key Activity : 1.0. Strengthen education capacity (excellence) and development impact.

Time Frame : $4_{th} Qtr Y1 - 8_{th} Qtr Y2$

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 accreditat	1.2. Obtain accreditation for MSc and PhD food security curriculum								
OUTPUT	Accredited programs	Accredited programs and curricula								
OUTPUT INDICATOR: Ph.D. programme from C		ion for the MSc and	SOURCE OF VE Certificate of acc	CRIFICATION: 1.2 reditation						
IMPLEMENTATION MILESTONES	1.2. Accreditation for	MSc and Ph.D. program	nmes obtained by Y2							
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 2 Years	Commencem	tent: 4th Qtr Y1 Completion: 8th Qtr Y2								
PRIMARY CONSTITUE JOOUST	NTS: GoK and	PARTICIPANTS: JOOUST School of Agriculture Board, JOOUST BPS, CUE, IUCEA								
	JE will accredit the MS ogramme	c and PhD programmes	on time for the comme	encement of the						
FINANCIAL IMPLICATIONS	Budget from JOC	DUST-ACE (USD)								
Budget Line Analysis	1 _{st} Qtr	2nd Qtr 3rd Qtr	4th Qtr	Total						
1 Certificate from (3MSc and 1PhI			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.)
Key Activity	: 1.0. Strengthen education capacity (excellence) and development impact.
Time Frame	: 2nd Qtr Y1 - 20th Qtr Y5
Sub-Activity	: 1.3. Rehabilitate and upgrade teaching and learning facilities

RESULT		Enabling environment for cutting edge research for student and staff									
ACTIVITY		1.3. Rehabilitate and upgrade teaching and learning facilities									
OUTPUT				nd learning facilities infrastructure improved. By Y5, laboratories and tructures would have been expanded and equipped.							
OUTPUT IN Laboratories		SOURCE OF VERIFICATION: Improved Laboratory equipment, space and new laboratories; Inspection certification									
IMPLEMENTATION Teaching and learn MILESTONES Teaching and learn				ing facilities	s rehabilitat	ed and upg	raded by Y5				
PROCUREM	ENT	Sole sourcing,	Com	petitive ten	der						
RESPONSIB IMPLEMEN		Center Directo	Center Director & Principal Investigator/DCD								
DURATION	5 Years	Commen	ceme	ent: 2nd Qtr	Y1 Completion: 20th Qtr Y5						
PRIMARY C ACE, CUE, C	CONSTITUEN GoK	ΓS: JOOUST		PARTICIPANTS: IUCEA, Partners							
ASSUMPTIC	ONS Procu	rement procedu	res ar	nd processes at the JOOUST University will be strictly adhered to							
FINANCIAL IMPLICATIO		Budget from	100	UST-ACE (USD)							
Budget Line Analysis				2ndQtr	3rdQtr	4thQtr			Total		
1 Rehabilitate Food science and chemistry laboratories				15,000					15,000		
2 Building inspection and certification					3,000				3,000		
TOTALS				15,000	3,000				18,000		

Table 10.4	: Detailed Activity Sheet (1)	.4)
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Key Activity : 1.0. Strengthen education capacity (excellence) and development impact **Time Frame** : 2nd Qtr Y1 – 16th Qtr Y4

Sub-Activity : 1.4. Set up a grants management scheme and allocate research funds

RESULT	A sound financial system that meets all international best practices								
ACTIVITY	1.4. Set up a grants	1.4. Set up a grants management scheme and allocate research funds							
OUTPUT	1.4. Restrictive we	1.4. Restrictive web-accessible audit and financial reports, annual work plan, and budgets.							
OUTPUT INDICATOR: reports and one audit report		d financial		F VERIFICATION: 1.4. ocuments on JOOUST-ACE					
IMPLEMENTATION MILESTONES	TION 1.4. Budgets, annual work plans, audit reports, financial reports published on JOOUST-ACE website by Y5.								
PROCUREMENT	N/A	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 4 Years	Commence	ement: 2 _{nd} Q	tr Y1	Completion: 10	бth Qtr Y4				
PRIMARY CONSTITUE and JOOUST	ENTS: IUCEA, GoK	PART	ICIPANTS: JO	DOUST-ACE Tear	m and Partners				
ASSUMPTIONS Gr	ants management scl	heme and al	location of fun	nds will be support	ed by all partners				
FINANCIAL IMPLICATIONS	Budget from J	OOUST-AC	CE (USD)						
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQtr	Total				
1 Design (consulta	ncy fee)	4000	4000	0	8000				
2 Allocate funds(N &PhD students)	1Sc			100,000	100,000				
3 Stipend				53,600	53,600				
TOTALS		4000	4000	153,600	159,600				

Table 10.5	: Detailed Activity Sheet (1.5.)
Key Activity	: 1.0. Strengthen education capacity (excellence) and development impact
Time Frame	: 2nd Qtr Y1 -20th Qtr Y5
Sub-Activity	: 1.5. Strengthen ICT infrastructure for teaching and learning

RESULT	Provision of readily accessible information on Insects for food and feed										
ACTIVITY	1.5. Strengthen ICT infrastructure for teach	hing and learning									
OUTPUT	Accessibility to ICT resources for teaching, learning, research and dissemination										
OUTPUT INDICATOR available broadband cor	R: Availability of e-learning tools with the nnection	SOURCE OF VERIFICATION: Number of computers and accessories procured; Broad band connectivity; Number of programs on ICT platform									
IMPLEMENTATION MILESTONES	1.5. ICT infrastructure established by Y5										
PROCUREMENT	Procure Quality computer facilities (Hardy	vare and soft wares)									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD										
DURATION: 5 Years	Commencement: 2nd Qtr Y1	nt: 2 _{nd} Qtr Y1 Completion: 20 _{th} Qtr Y5									
PRIMARY CONSTITU	JENTS: PARTICIPANTS:										
ASSUMPTIONS	stablishment of ICT resources will be suppor	ted by all participants/partners									
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)										
Budget Line Analysis	1st Qtr 2nd Qtr	3rd Qtr 4th Qtr Total									
1 Procure LCD F laptop@50,000	Projector@60,000; 60,000	50,000									
2 Procure Applic software@49,0 Dedicate bandy											
TOTALS	109,000	50,000									

Table 10.6	: Detailed Activity Sheet (1.6)
Key Activity	: 1.0. Strengthen education capacity (excellence) and development impact.
Time Frame	: 2nd Qtr Y1 – 19th Qtr Y5
Sub-Activity	: 1.6. Advertise and admit students into MSc and PhD programmes

RESULT		Qu	alified stu	dents adr	nitted into	PhD and	MS	c progra	mmes			
ACTIVITY		1.6.	1.6. Advertise and admit students into MSc and PhD programmes									
OUTPUT		fron regi	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									
OUTPUT IND PhD students	. Admissi	on docum	nents for N	MSc and			RCE OF V			`ION:1.6		
IMPLEMENTA MILESTONES		1.6.	. 60 MSc :	students a	and 20 PhD students admitted by Y5							
PROCUREME	NT	N/A	A									
RESPONSIBIL FOR IMPLEMENTA		Cer	nter Direct	tor & Prir	ncipal Inv	ipal Investigator/DCD						
DURATION: 5	Years		Com	menceme	ent: 2nd Qtr Y1 Completion: 19th Qtr Y5							
PRIMARY CO ACE,GOK,IUC		JENT	S: JOOUS	ST-	PARTICIPANTS: JOOUST-ACE Team and Partners							
ASSUMPTION	IS TI	he Ad	missions	Committe	tee shall admit students following an open, merit-based procedure.							
FINANCIAL IMPLICATION	IS		Budget fr	com JOO	UST-ACE	E (USD)						
Budget Line Analysis					1st Qtr	2nd Qtr	31	rd Qtr	4th Qtr			Total
1 Develo	1 Develop and produce brochures					2000						2,000
2 Advertise in the print media						4000						4,000
3 Advertise on the website						800						800
TOTALS						6,800						6,800

Table 10.7	: Detailed Activity Sheet (1.7)
Key Activity	: 1.0. Strengthen education capacity (excellence) and development impact.
Time Frame	: 2ndQtr Y1 – 20th Qtr Y5
Sub-Activity	: 1.7. Offer required taught courses to MSc and PhD students

RESULT	Studer	Students equipped with requisite knowledge and skills									
ACTIVITY	1.7. Of	1.7. Offer required taught courses to MSc and PhD students									
OUTPUT		1.7. Courses taught - All first year MSc students will take core units in food security before 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 programmeSOURCE OF VERIFICATION: 1 Course outline, Course evaluation											
IMPLEMENTATION MILESTONES	1.7. Of	1.7. Offer required taught courses to MSc and PhD students by Y1									
PROCUREMENT	N/A										
RESPONSIBILITY FOR IMPLEMENTATION	Center	Center Director & Principal Investigator/DCD									
DURATION: 5 Years		Commencem	ient: 4th Qth	r Y1	•	Completion: 20th Qtr Y5					
PRIMARY CONSTITU CUE, GoK	ENTS: JO	S: JOOUST-ACE, PARTICIPANTS: Visiting faculty, Partner Institutions, ICUEA									
	ssociate I odules	Faculty and Vis	siting Scier	ntists will s	support	the teaching	of all acad	demic courses and			
FINANCIAL IMPLICATIONS	Bu	dget from JOC	OUST-ACE	E (USD)							
Budget Line Analysis		1st Qtr	2ndQtr	3rdQtr	4thQt	r		Total			
1 Visiting Schola accommodation honoraria costs	n and		15,000					15,000			
TOTALS			15000					15,000			

Table 10.8	: Detailed Activity Sheet (1.8)
Key Activity	: 1.0. Strengthen education capacity (excellence) and development impact.
Time Frame	: 4th Qtr Y1 – 19th Qtr Y5
Sub-Activity	: 1.8. Initiate and implement regional student exchanges to broaden learning
	Experience

RESULT		Students equipped with cross cultural and institutional learning experiences and with capacity to serve internationally								
ACTIVITY	1.8. In	1.8. Initiate and implement regional students exchanges to broaden learning experience								
OUTPUT	provid	1.8 Enhanced capacity and cross cultural skills: Promotion of cross learning at JOOUST, provide an opportunity for interaction with experienced researchers, building networks and enhancement employability.								
OUTPUT INDICATOR:	ergone ex	change pro					/ERIFICATION: lents on exchange			
IMPLEMENTATION MILESTONES								¥5		
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 5 Years		Co	Commencement: 4th Qtr Y1				Completion: 19th Qtr Y5			
PRIMARY CONSTITUE and JOOUST	ENTS: IU	JCEA	A, GoK	PARTICIPANTS: JOOUST-ACE Team and Partners						
ASSUMPTIONS	ll particip	oants	will be c	ooperative	for effectiv	e mon	itoring and	evaluati	ion	
FINANCIAL IMPLICATIONS	Βι	ıdget	t from JO	OUST-AC	E (USD)					
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQ	<u>e</u> tr		Total		
1 Students: travel, accommodation and stipends per year [students airfare]						12,0	000		12,000	
TOTALS						12,0	000		12,000	

Table 10. 9: Detailed Activity Sheet (1.9)Key Activity: 1.0. Strengthen education capacity (excellence) and development impact.Time Frame: 1st Qtr Y1 - 20th Qtr Y5Sub-Activity: 1.9. Develop and offer relevant short courses for special groups

RESULT	Stude	nts equippe	ed with stro	ong conceptu	ıal, te	chnical and anal	ytical ski	ills			
ACTIVITY	1.9. D	1.9. Develop and offer relevant short courses for special groups									
OUTPUT		Short term courses to be offered for full time, part-time or e-platform: Honoraria, accommodation, travel, consumables, certificates, preparation of training materials									
OUTPUT INDICATO	R: Short	course cur	riculum			SOURCE OF short courses					
IMPLEMENTATIO 8 Short courses curriculum developed by Y1 N MILESTONES 8 Short courses curriculum developed by Y1											
PROCUREMENT	N/A	N/A									
RESPONSIBILITY FOR IMPLEMENTATIO N	Cente	Center Director & Principal Investigator/DCD									
DURATION: 5 Years		Commen	cement: 1s	t Qtr Y1		Completion:20th Qtr Y5					
PRIMARY CONSTITU	JENTS:	JOUST-A	CE, GoK	PARTICIPANTS: JOOUST Faculty, IUCEA							
ASSUMPTIONS	he curric	ulum deve	lopment wi	ill be suppor	ted b	y all participants	/partners				
FINANCIAL IMPLICATIONS	B	udget from	JOOUST-	ACE (USD)							
Budget Line Analysis			1stQtr	2nd Qtr	3rd	Qtr 4thQtr		Total			
1 Honoraria, acc travel, consum preparation of	2000	2000	20	00 2000		8,000					
TOTALS			2000	2000	20	00 2000		8,000			

Key Activity :1.0. Strengthen education capacity (excellence) and development impact

Time Frame : 5th Qtr Y2 - 20th Qtr Y5

Sub-Activity :1.10. Develop content and convert for delivery by e-learning platform

RESULT	Learning	Learning content developed and delivered on e-platform							
ACTIVITY	1.10. Dev	1.10. Develop content and convert for delivery by e-learning platform							
OUTPUT	Accessibi	lity for teac	ching, lear	ming and	researc	h			
OUTPUT INDICATOR: and learning activities	Enhanced c	ommunicat	ion, infor	mation sha	aring	SOURCE OF Teleconference	VERIFICATION: cing facility		
IMPLEMENTATION MILESTONES	Content delivered via e-platform by 5th Qtr Y2								
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 4 Years	С	ommencen	nent: 5th Q	tr Y2		Completion: 20th Qtr Y5			
PRIMARY CONSTITUE and JOOUST	ENTS: IUCE	EA, GoK	A, GoK PARTICIPANTS: JOOUST-ACE Team and Partners						
ASSUMPTIONS	earning conte	ent develop	ment and	delivery	via e-pl	atform will be su	pported by all partners		
FINANCIAL IMPLICATIONS	Budg	et from JO	OUST-AG	CE (USD)					
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQt	tr	Total			
1 Preparation of content by staff			0	0	0		0		
2 Conversion of th	2 Conversion of the content			0	0		0		
TOTALS			0	0	0		0		

Table 10.11	:Detailed Activity Sheet (1.11)
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Key Activity : 1.0. Strengthen education capacity (excellence) and development impact

Time Frame : 3rd Qtr Y1 – 16th Qtr Y4

Sub-Activity : 1.11. Expand the existing library resources including e-resources relevant to the ACE

RESULT	Enhand	Enhanced access to training and research materials								
ACTIVITY	1.11. E	1.11. Expand the existing library resources including e-resources relevant to the ACE								
OUTPUT	Improv	Improved Information Technology capacity and external connectivity of the library								
OUTPUT INDICATOR: Existing library resources expanded with a server and other IT devices purchasedSOURCE OF VERIFICATION: Procurement Documents										
IMPLEMENTATION MILESTONES										
PROCUREMENT	Sole so	Sole sourcing, Competitive tender								
RESPONSIBILITY FOR IMPLEMENTATION	Center	Center Director & Principal Investigator/DCD								
DURATION: 4 Years	Years Commencement: 3rd Qtr Y1					Completion: 16th Qtr Y4				
PRIMARY CONSTITUE and JOOUST	ENTS: IU	CEA, GoK	PART	ICIPANTS: JOOUST-ACE Team and Partners						
	pansion or rtners	of the existing	g library re	esources ind	cluding	e-resources will be supported by all				
FINANCIAL Budget from JOOUST-ACE (USD) IMPLICATIONS Budget from JOOUST-ACE (USD)										
Budget Line Analysis		1 stQtr	2ndQtr	3rdQtr	4thQtr	r Total				
1 Periodic subscrip			25000	0	25,000					
2 Book Purchases				0	51,00	00 51,000				
TOTALS				25000	51000	0 76,000				

Table 10.12	:Detailed Activity Sheet (1.12)
Key Activity	: 1.0. Strengthen education capacity (excellence) and development impact.
Time Frame	: 3rd Qtr Y1 - 20th Qtr Y5
Sub-Activity	: 1.12. Broaden students' knowledge and skills through internship at advanced research
	institutions and industries

	- 1									
RESULT	Enhanced	Enhanced students' knowledge and skills in their respective fields of specialization								
ACTIVITY		1.12. Broaden students' knowledge and skills through internship at advanced research institutions								
OUTPUT	The Centre	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: 1.12. Enhanced knowledge and skills base of participated studentsSOURCE OF VERIFICATION: 1.12. Students' internship reports										
IMPLEMENTATION MILESTONES	N 1.12 Organize internship for students by Y3									
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	Center Director & Principal Investigator/DCD								
DURATION: 5 Years	Со	ommencen	nent: 3rd Qtr	Y1	Completion	Completion: 20th Qtr Y5				
PRIMARY CONSTITU	JENTS: JOOU	ST-ACE	PARTIC	IPANTS: Re	gional and inte	rnational p	artners			
ASSUMPTIONS Advanced research institutions and students be supportive prior and during the period of internship										
FINANCIAL Budget from JOOUST-ACE (USD)										
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQtr		Total				
1 Internship			0	0	0					
TOTALS 0 0 0 0 0							1			

Key Activity: 1.0. StrTime Frame: 5th -8th	engthen Qtr Y2	ity Sheet (1. education ca	pacity (e			•	•	ng and	
RESULT	Enhan	ced teaching/le	earning m	aterials us	sed in t	he instructiona	l process.		
ACTIVITY	1.13. F	Provide appropri	riate tools	for peopl	e with	disabilities to	access lea	rning and research	
OUTPUT		vement in the r ing education f			and lea	rners from ma	rginalized	l communities	
OUTPUT INDICATOR:	Learnin	g tools procure	ed			SOURCE Of assistive		FICATION: Number procured	
IMPLEMENTATION MILESTONES									
PROCUREMENT	Sole so	ourcing, Comp	etitive ten	der					
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 1 Year		Commencem	nent: 5th Q	tr Y2		Completion: 8th Qtr Y2			
PRIMARY CONSTITUE and JOOUST	ENTS: IU	JCEA, GoK	PART	ICIPANT	S: JOC	DUST-ACE Te	eam and P	artners	
ASSUMPTIONS	l particip	ants will be co	operative	for effect	tive mo	onitoring and e	valuation		
FINANCIAL IMPLICATIONS									
Budget Line Analysis 1stQtr 2ndQtr 3rdQtr 4thQtr Total						Total			
1 Presence of assist devices for vario challenges									
TOTALS								0	

Key Activity: 2.0. Strengthen research capacity (excellence)Time Frame: 3rd Qtr Y1 - 20th Qtr Y5Sub-Activity: 2.1. Scale up MSc and PhD research in key areas in insect science and food security

RESULT	An improved research knowledge in the field of students' specialization									
ACTIVITY	2.1. Scale	2.1. Scale up MSc and PhD research in key areas in insect science and food security								
OUTPUT		2.1 Enhanced research and supervision. The Centre will fund the research work of students in food security.								
OUTPUT INDICATOR: progress monitored	2.1. Student	s' research	work fund	led and		SOURCE OF VERIFICATION: 2.1 Fund remittance advice, supervisory reports				
IMPLEMENTATION MILESTONES	N 2.1 Fund and supervise students' research by Y3									
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 5 Years	ommencement: 3rd Qtr Y1				Completion: 20th Qtr Y5					
PRIMARY CONSTITUE	NTS: JOOU	JST ACE	PARTI	CIPANTS:	TS: Associate faculty					
ASSUMPTIONS	l partners an	d Associat	te Faculty	be supportiv	ve durir	ng the entire research phase				
FINANCIAL IMPLICATIONS Budget from JOOUST-ACE (USD)										
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQt	r Total					
1 Scale up MSc an research	d PhD		1500	3000	1500	6,000				
TOTALS			1500	3000	1500	6,000				

Table 10. 15	: Detailed Activity Sheet 2.2
Key Activity	: 2.0. Strengthen research capacity (excellence)
Time Frame	: 4th Qtr Y1 - 20th Qtr Y5
Sub-Activity	: 2.2 Expand regional and international collaborations and joint research
	Programmes

RESULT	Functional partnership platforms for regional and international collaboration in research								
ACTIVITY	2.2 Expan	2.2 Expand regional and international collaborations and joint research programmes							
OUTPUT	2.2. New 1	partners er	ngaged and	existing stre	engthe	ned			
OUTPUT INDICATOR:	Js.				OURCE OF VERIFICATION: artnership records				
IMPLEMENTATION MILESTONES2.2. Establish new partnerships and strengthen existing ones in Insect research and organize stakeholders meeting by Y5							search and		
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	Center Director & Principal Investigator/DCD							
DURATION: 5 Years	C	ommencei	ment: 4th Qt	0	Completion: 20th Qtr Y5				
PRIMARY CONSTITUE	ENTS: JOOU	UST-ACE	PARTIC	CIPANTS: I	Regior	al and i	internat	ional pa	urtners
ASSUMPTIONS Ex	xisting and n	ew partner	rs will e sup	oportive at a	ll stag	es			
FINANCIAL IMPLICATIONS Budget from JOOUST-ACE (USD)									
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQ	Įtr			Total	
1 Regional and int collaborations	ernational	5000	5000	5000	4,60	00			8,000
TOTALS									19,600

Table 10.16	:Detailed Activity Sheet (2.3)
Key Activity	: 2.0. Strengthen research capacity (excellence).
Time Frame	: 2nd Qtr Y1- 15th Qtr Y4
Sub-Activity	: 2.3. Equip and rehabilitate research laboratories for upscaling insect rearing,
	processing and analysis

RESULT	Enablin	Enabling environment for cutting edge research								
ACTIVITY		2.3. Equip and rehabilitate research laboratories for upscaling insect rearing, processing and analysis								
OUTPUT		2.3 Existing biology laboratory will be rehabilitated with state-of-the-art facilities for cutting edge research								
OUTPUT INDICATOR	: 2.3 Lab e	quipment pu	ırchased			SOURCE OF Procurement				
IMPLEMENTATION MILESTONES	2.3. Reh	2.3. Rehabilitate research labs by Y4								
PROCUREMENT	Sole sou	Sole sourcing, Competitive tender								
RESPONSIBILITY FOR IMPLEMENTATION	Center I	Center Director & Principal Investigator/DCD								
DURATION: 4 Years		Commence	ment: 2nd Q	tr Y1	•	Completion: 15th Qtr Y4				
PRIMARY CONSTITU team	ENTS: JO	OUST-ACE	PART	ICIPANTS	: JOO	UST Procurem	ent			
ASSUMPTIONS Pr	rocurement	t procedures	and proces	ses at the U	nivers	ity of Ghana wi	ll be str	ictly adhered to		
FINANCIAL Budget from JOOUST-ACE (USD) IMPLICATIONS Implication										
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQ			Total		
1 Equip and rehal research laborat			20,000	20,000	10,0	000		50,000		
TOTALS								50,000		

Table 10. 17: Detailed Activity Sheet (2.4)Key Activity: 2.0. Strengthen research capacity (excellence)Time Frame: 2nd Qtr Y1 – 20th Qtr Y5Sub-Activity: 2.4. Enhance faculty research capacity through staff development, exchange programmes and visits

RESU	ILT	Im	Improved staff capacity in knowledge and skills in research and publications							
ACTIV	VITY		2.4. Enhance faculty research capacity through staff development, exchange programmes and visits							
OUTP	UT	res	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							
OUTP researc	UT INDICATOR:	2.4. /	Academ	ic improv	ed knowled	lge and skills	s in	SOURCE OF VERIFICATION: Report of skills audit		
	EMENTATION STONES	2.4	. Full en	hanced c	apacity by 2	20th Qtr, Y1	-Y5			
PROC	UREMENT	N/A	A							
FOR	ONSIBILITY EMENTATION	Center Director & Principal Investigator/DCD								
DURA	ATION: 5 Years		Co	ommencement: 2nd Qtr Y1				Completion: 20th Qtr Y5		
	ARY CONSTITUE DOUST	NTS	: IUCEA	A, GoK PARTICIPANTS: JOOUST-ACE Team and Partners						
ASSU	MPTIONS AI	l part	ticipants	will be c	ooperative	for effective	monit	toring and	evaluation	
	NCIAL ICATIONS		Budget	et from JOOUST-ACE (USD)						
Budget Line Analysis				1stQtr	2ndQtr	3rdQtr	4 _{th} (Qtr		Total
1	Travel and subst cost (3 persons/y		ce		2,800	2,800	3,0	00		8,600
2	Postdoctoral fello persons/yr x 3yrs mnths				5,000	5,000	5,0	00		15,000
TOTALS					7,800	7,800	8,0	00		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 Y3
Sub-Activity	: 2.5. Recruit qualified technical and support staff

RESULT	SULT Support staff recruited with requisite knowledge and skills relevant to the ACE								
ACTIVITY	2.5. Re	2.5. Recruit qualified technical and support staff							
OUTPUT		chnical and re to retain r			l. The (Centre has a well-designed incentive			
OUTPUT INDICATOR:	Qualified	l technical a	and suppor	t staff recru	ited	SOURCE OF VERIFICATION: Number of technical and support staff recruited.			
IMPLEMENTATION MILESTONES	1 Food	technologis	st, 2 technic	cians and 2	suppor	rt staff recruited by 15th, 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	ENTS: Go	TS: GoK and PARTICIPANTS: JOOUST-ACE Team and Partners							
ASSUMPTIONS	l participa	ants will be	cooperativ	e for effect	ive mo	onitoring and evaluation			
FINANCIAL IMPLICATIONS									
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQ	Qtr Total			
1 Cost of adverts		1,000				1,000			
2 salaries and allow	wances		1,000		6,00	00 7,000			
TOTALS						8,000			

Table 10.19: Detailed Activity Sheet (2.6)Key Activity: 2.0. Strengthen education capacity (excellence) and development impact.Time Frame: 4th, 8th, 12th, 16th & 20th Qtrs Y1-Y5Sub-Activity: 2.6. Conduct training workshops and seminars to broaden students' learning experience

	-							
RESULT	Students equipped wi	Students equipped with requisite knowledge and skills						
ACTIVITY	2.6. Conduct training	2.6. Conduct training workshops and seminars to broaden students' learning experience						
OUTPUT		ACE would have conduct ills of participants to be ab						
OUTPUT INDICATOR:	: Four training workshop	os and seminar reports		SOURCE OF VERIFICATION: workshops and seminar reports				
IMPLEMENTATION MILESTONES	Organize four training Y5	g workshops and seminars	to broaden student	ts' learning experience by				
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD							
DURATION: 5 Years	Commencem	ent: 4th Qtr Y1	Completion: 20th Qtr Y5					
PRIMARY CONSTITUT ACE, GoK	ENTS: JOOUST-	PARTICIPANTS: MoE, Students						
ASSUMPTIONS	ollaborating partners and	l participants will be suppo	ortive at all stages	of the training workshop				
FINANCIAL IMPLICATIONS								
Budget Line Analysis	1stQtr	2nd Qtr 3rdQtr 4thQ		Total				
1Cost of adverts allowances	and	12,8	300	12,800				
TOTALS	12,800							

Table 10. 20	: Detailed Activity Sheet (2.7)
Key Activity	: 2.0. Strengthen research capacity (excellence)
Time Frame	: 1st Qtr Y1 - 8th Qtr Y2
Sub-Activity	: 2.7. Develop and sign MoUs with partner institutions

RESU	LT		Strengthen research infrastructure and management capacity globally through model programs in insect science						
ACTIV	VITY	2.7. Dev	2.7. Develop and sign MoUs with partner institutions						
OUTP	UT	Partners	hip arrangen	ents and ne	etworks fo	or ACE	INSEFOOI	DS	
OUTP	UT INDICATOR:	Partnersh	ip MOU sign	ed			SOURCE OF VERIFICATION: MOU documents		
	EMENTATION STONES	Partners	hip MOU de	veloped and	d signed b	by 2			
PROC	UREMENT	N/A							
FOR	ONSIBILITY EMENTATION	Center Director & Principal Investigator/DCD							
DURATION: 2 Years Co			Commencen	mmencement: 1st Qtr Y1 Completion: 8th Qtr Y2					Y2
	ARY CONSTITUE and IUCEA	ENTS: JO	OUST,	PARTIC	IPANTS:	JOOL	JST-ACE Te	eam and l	Partners
ASSU	MPTIONS AI	l participa	nts will be co	ooperative f	for effecti	ve MO	U developm	ent and s	igning
FINAN IMPLI	NCIAL CATIONS	Bud	get from JOO	DUST-ACE	E (USD)				
Budget Analys			1stQtr	2ndQ tr	3rdQtr	4thQt	r		Total
1	Legal fees								3,000
2	2 Travel & accommodation for council 5								5,000
3 TOTALS 8,000			8,000						8,000

Table 10. 21: Detailed Activity Sheet (2.8)

Key Activity: 2.0. Strengthen research capacity (excellence).Time Frame: 2nd Qtr Y1 - 20th Qtr Y5Sub-Activity:2.8. Attract, retain and retool faculty in areas relevant to the ACE

RESULT	Faculty	Faculty retooled with requisite knowledge and skills relevant to the ACE							
ACTIVITY	2.8. Att	2.8. Attract, retain and retool faculty in areas relevant to the ACE							
OUTPUT	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	ning report.			SOURCE training r		RIFICATION: Faculty	
IMPLEMENTATION MILESTONES	2.8. Fac	ulty retooled	by Y5						
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center I	Center Director & Principal Investigator/DCD							
DURATION: 5 Years		Commencement: 2nd Qtr Y1				Completion: 20th Qtr Y5			
PRIMARY CONSTITUI	ENTS: IU	CEA, GoK	PART	CIPANTS:	JOOI	JST-ACE	Feam and	l Partners	
ASSUMPTIONS	ll participa	unts will be c	ooperative	for effective	facul	ty skills en	hanceme	nt	
FINANCIAL IMPLICATIONS	Buc	lget from JO	OUST-ACI	E (USD)					
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4 _{th}	Qtr		Total		
1 Retool staff in 4 specialized areas - [Nutrition and dietetics, food quality and safety and agricultural entomology, M&E]		8,000	8,000					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 Y5
Sub-Activity	:2.9. Publish in peer reviewed journals

RESULT	Researc	Research publications in recognized peer-reviewed journals						
ACTIVITY	2.9. Pul	2.9. Publish in peer reviewed journals						
OUTPUT	will hav to exist visibilit	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: reviewed journals	2.9. 10 R	esearch publi	ication per	year in peer		OURCE C esearch Pu		FICATION: Is folder
IMPLEMENTATION MILESTONES	2.9.40	research pub	lication by	Y5				
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD							
DURATION: 5 Years	Commencement: 2nd Qtr Y1				Completion: 20th Qtr Y5			
PRIMARY CONSTITUE and JOOUST	ENTS: IU	CEA, GoK	PARTI	CIPANTS: J	OOUST	-ACE Tear	n and Pa	rtners
ASSUMPTIONS Pu	blication	of peer-revie	ewed resear	ch findings v	will be su	upported by	y all parti	cipants/partners
FINANCIAL IMPLICATIONS								
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQtr			Total	
1 10 Publication c year	2,000	3,000	5,000	5,000			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 Y5
Sub-Activity	: 2.10. Support scientific conference presentations

RESULT	Staff k	Staff knowledge generation and transfer						
ACTIVITY	2.10. S	2.10. Support scientific conference presentations						
OUTPUT	Enhanc researc	• • •	ouilding fo	or faculty le	eading	to improved knowledge and skills in		
OUTPUT INDICATOR: in research	2.10. Aca	ademic improv	ved know	ledge and s	kills	SOURCE OF VERIFICATION: Report of skills audit		
IMPLEMENTATION MILESTONES	2.10. S	upport staff ar	nd student	s' conferen	ice pres	esentations by Y5		
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION								
DURATION: 5 Years		Commencem	nent: 2 _{nd} (Qtr Y1		Completion: 20th Qtr Y5		
PRIMARY CONSTITUE and JOOUST	ENTS: IU	UCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners						
ASSUMPTIONS	l particip	ants will be co	ooperative	e for effecti	ve mor	nitoring and evaluation		
FINANCIAL IMPLICATIONS								
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQtr	r Total			
1 Transport cost, r subsistence cost	n,		9,000	9,000	0 18,000			
TOTALS				9,000	9,000	0 18,000		

Table 10.24:	Detailed Activity Sheet (2.11)
Key Activity:	2.0. Strengthen research capacity (excellence)
Time Frame:	5th Qtr Y2 - 20th Qtr Y5
Sub-Activity:	2.11. Develop insect technology incubation and skills transfer hub

RESULT	Enhanced knowledge ba	Enhanced knowledge base in insect in insect science and technology					
ACTIVITY		2.11. Carry out an implementation survey and impact assessments through participatory community outreach activities					
OUTPUT	2.11. Enhanced scientific	c capacity across the c	country and regionally				
OUTPUT INDICATOR outreach plans	2.11. Establishment of stra	ategic regional		ic regional outreach Number of community			
IMPLEMENTATION MILESTONES	2.11. Carry out an implementation of the second sec	mentation survey and	impact assessments by	Y3			
PROCUREMENT	N/A						
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Princi	Center Director & Principal Investigator/DCD					
DURATION: 3 Years	Commencement	: 5th Qtr Y2	Completion: 20th Qtr	Y5			
PRIMARY CONSTITU and JOOUST	ENTS: IUCEA, GoK	ARTICIPANTS: JOC	OUST-ACE Team and F	Partners			
ASSUMPTIONS	arrying out survey and impa	act assessment will be	supported by all partic	ipants/partners			
FINANCIAL IMPLICATIONS	Budget from JOOUS	ST-ACE (USD)					
Budget Line Analysis	1 _{st} Qtr	2ndQtr 3rdQtr	4thQtr	Total			
1 Write proposal funds to develo technology incu skills transfer h	p insect bation 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 1	3.1. Set up collaborative postgraduate programmes with other Institutions							
OUTPUT	of progra	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 o	organizations	s and equipr	SOURCE OF VERIFICATION: MOU signed, number of postgraduate students in other institutions					
IMPLEMENTATION MILESTONES	16 stude	16 students involved in postgraduate programmes by Y2							
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center D	Center Director & Principal Investigator/DCD							
DURATION: 2 Years	•	Commencen	ommencement: 3rd Qtr Y1			Completion: 6th Qtr Y2			
PRIMARY CONSTITUE and JOOUST	EA, GoK	, GoK PARTICIPANTS: JOOUST-ACE Team and Partners							
ASSUMPTIONS	ollaborative	e postgradua	te programr	nes will be	supporte	ed by all part	ticipants	/partners	
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)								
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQtr			Total		
1 Accommodation days), consuma certificates, prep training materia	5,000	5,000	0	0	0		10,000		
TOTALS	5,000	5,000	0	0	0		10,000		

Table 10.26:	Detailed Activity Sheet (3.2)
Key Activity:	3.0. Attracting regional faculty and students.
Time Frame:	1st Qtr Y1 -16th Qtr Y4
Sub-Activity:	3.2. Set up structures for student and staff support

RESULT	Enablin	Enabling environment for cutting edge research							
ACTIVITY	3.2. Set	3.2. Set up structures for student and staff support							
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 e	quipped lab	s, working s	space	Number laborato	of state-o ries	RIFICATION: of-the-art teaching f the art laboratories	
IMPLEMENTATION MILESTONES	Office I	Block/confe	rence facilit	y set up by	Y4				
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center I	Center Director & Principal Investigator/DCD							
DURATION: 3 Years	ΓΙΟΝ: 3 Years Com			Commencement: 1st Qtr Y1			Completion:16th Qtr Y4		
PRIMARY CONSTITUENTS: IUCEA, GoK and JOOUST			A, GoK PARTICIPANTS: JOOUST-ACE Team and Partners						
ASSUMPTIONS Se	etting up st	tructures for	r students ar	nd staff sup	port wi	ill be supp	orted all p	partners	
FINANCIAL IMPLICATIONS	Buc	lget from JO	DOUST-AC	E (USD)					
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQ	tr		Total	
1 Office Block/co facility	ce Block/conference		60,000					100,000	
2 Guest house (20 postgraduates)									
TOTALS		40,000	60,000					100,000	

Key Activity:3.0Time Frame:2ndSub-Activity:3.3). Attracti Qtr Y1 -	· 20th QtrY	al faculty	and students		gramme a	and regi	ional working
RESULT	Enhanced	l regional n	nentorship,	training and r	esearch j	programn	nes	
ACTIVITY	3.3. Estab	lish staff/s	tudent regio	onal mentorsh	ip progra	mme and	l regiona	l working groups:
OUTPUT								ership in sustainable onal development
OUTPUT INDICATOR: 3. research collaboration	3. Numbe	er of mentor	rship progra	ammes and ne				FICATION: working groups
IMPLEMENTATION MILESTONES	3.3. Desig	gn and imp	lement men	ntorship progra	ammes (Consultar	ncy) by 2	20th Qtr -Y5
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD							
DURATION: 5 Years	Commencement: 2nd – Qtr Y1 Completion: 20th Qtr Y				0th Qtr Y	75		
PRIMARY CONSTITUEN and JOOUST	TS: IUCE	EA, GoK	PARTIC	CIPANTS: JO	OUST-A	CE Tean	n and Pa	rtners
ASSUMPTIONS For	nation of	strategic w	orking grou	ips/teams will	be suppo	orted by a	all partic	ipants/partners
FINANCIAL IMPLICATIONS	Budg	et from JO	OUST-ACI	E (USD)				
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQtr			Total
1 Consultancy			2,000					2,000
2 Travel; subsistenc honoraria				4,000				4,000
3 Language support					4,000			4,000
TOTALS			2,000	4,000	4,000			10,000

Table 10. 28 Key Activity: Time Frame: Sub-Activity:	Detailed Activity Sheet (3.4) 3.0. Attracting regional faculty and students. 2 _{nd} Qtr Y1 - 20 _{th} Qtr Y5 3.4. Develop partnerships with industry, research organization for staff and 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 translational science est	R: Strong partnership to promote and expand tablished SOURCE OF VERIFICATION: Number of industries/research organization
IMPLEMENTATION MILESTONES	Develop partnership for staff and equipment sharing -Y5
PROCUREMENT	N/A
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD
DURATION: 5 Years	Commencement: 2nd Qtr Y1 Completion: 20th Qtr Y5
PRIMARY CONSTITU	JENTS: PARTICIPANTS:
	Development of partnerships with industry, research organization for staff and equipment sharing will be supported by all partners
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)
Budget Line Analysis	1stQtr 2ndQtr 3rdQtr 4thQtr Total
1 Travel; subsist fee; (Costs cov research)	
TOTALS	

Table 10.29: Key Activity:	Detailed Activity Sheet (4.1) 4.0. Plan for national, regional and international academic partners and collaborations.						
Time Frame: Sub-Activity:	2nd, 5th, 8th, 11th 4.1. Inception n	2nd, 5th, 8th, 11th, 14th, 17th &20th Qtrs Y1-Y5 4.1. Inception meeting and workshops to form strategic working groups for collaborative teaching and research					
RESULT	Integrated large s collaboration wit					sharing and research	
ACTIVITY	4.1. Inception me teaching	eeting and w	vorkshops to	form strat	egic worki	ing groups for collaborative	
OUTPUT	4.1. Enhanced qui industry.	uality and qu	antity of res	earch in ir	isect for fo	oods and feeds relevant to the	
OUTPUT INDICATO and seminars held; res			onferences			ERIFICATION: Inception conference report	
IMPLEMENTATIO N MILESTONES		Honoraria, accommodation, travel (5 days), workshop consumables, certificates, preparation of workshop materials					
PROCUREMENT	N/A						
RESPONSIBILITY FOR IMPLEMENTATIO N	Center Director & Principal Investigator/DCD						
DURATION: 5 Years	S Commencement: 2nd Qtr Y1 Completion: 20th Qtr Y5					¥5	
	PRIMARY CONSTITUENTS: Image: PARTICIPANTS: JOOUST-ACE Team and Partners IUCEA, GoK and JOOUST Image: Partners					d Partners	
ASSUMPTIO NS For	mation of strategic	working gro	oups for colla	aborative t	eaching w	ill be supported by all partners	
FINANCIAL IMPLICATIONS	Budget from JC	OUST-AC	E (USD)				
Budget Line Analysis	1 stQtr	2ndQtr	3rdQtr	4thQtr		Total	
1 Honoraria, accommodatio travel,worksho 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)
Key Activity:	4.0. Plan for national, regional and international academic partners and
	collaborations.
Time Frame:	6th Qtr Y2 -20th Qtr Y5
Sub-Activity:	4.2. Institutionalize faculty exchange programmes

RESULT	Improved staff capacity in knowledge and skills in research and publications					
ACTIVITY	4.2. Institutionalize faculty exchange programmes					
OUTPUT	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: research	7.2. Academic improved knowledge and skills in SOURCE OF VERIFICATION: Report of skills audit					
IMPLEMENTATION MILESTONES	4.2. Five faculty participate in exchange programmes by Y5					
PROCUREMENT	N/A					
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD					
DURATION: 4 Years	Commencement: 6th Qtr Y2 Completion: 20th 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{array}{ c c c c c }\hline 1_{st}Qt \\ r \\ \hline \end{array} & 2_{nd}Qtr \\ r \\ \hline \end{array} & 3_{rd}Qtr \\ \hline 4_{th}Qtr \\ \hline \end{array} & \hline \end{array} \\ \hline \\ \hline$					
1Faculty (5) /yr for months @Ksh 600,000.00/perso for competitive g	on). Apply					
TOTALS						

Table 10.31	Detailed Activity Sheet (4.3)
Key Activity:	4.0. Plan for national, regional and international academic partners and
	collaborations.
Time Frame:	6th Qtr Y2 -20th Qtr Y5
Sub-Activity:	4.3. Establish and publish a high impact peer reviewed journal in insects as food and feeds

RESULT	Enhanced platform for research publications				
ACTIVITY					
ACTIVITY	4.3. Establish and publish a high impact peer reviewed journal in insects as food and feeds				
OUTPUT	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. Publish one peer-reviewed journal in Insect Science by Y3				
PROCUREMENT	N/A				
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD				
DURATION: 4 Years	Commencement: 6th Qtr Y2 Completion: 20th Qtr Y5				
PRIMARY CONSTITUE and JOOUST	ENTS: IUCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners				
ASSUMPTIONS	Il participants will be cooperative for effective monitoring and evaluation				
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)				
Budget Line Analysis	1stQtr 2ndQtr 3rdQtr 4thQtr Total				
1					
TOTALS					

Table 10. 32:	Detailed Activity Sheet (4.4)
Key Activity:	4.0. Plan for national, regional and international academic partners and collaborations.
Time Frame:	4th Qtr Y1 - 20th Qtr Y5
Sub-Activity:	4.4. Set up collaborative postgraduate, postdoctoral studies and fellowship Programmes

RESULT	Enhanced research infrastructure sharing; sustainable knowledge and technology transfer and benchmarking of international accreditation of programs								
ACTIVITY	4.4. Se	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.							
OUTPUT INDICATOR 4 academic staff, researche programs									
IMPLEMENTATION MILESTONES	Integrate large scale interdisciplinary programs to intensify sharing and research collaboration by Y5						research		
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 5 Years		Commencem	nent: 4rd Qtr Y1		Completion: 20th Qtr Y5				
PRIMARY CONSTITUE and JOOUST	ENTS: IU	UCEA, GoK	PARTICIPA	NTS: JOC	DUST-ACE T	eam and Pa	rtners		
ASSUMPTIONS	l particip	ants will be co	ooperative for efforter	fective m	onitoring and	evaluation			
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)								
Budget Line Analysis				tr 4th	Qtr		Total		
1 Travel and subsistence allowance; honorarium (Covered under research)							0		
TOTALS Image: Constraint of the second sec									

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		Integrated large scale interdisciplinary programs to intensify sharing and research collaboration with International Academic Partners.								
ACTIVITY	4.5. To fo	orm strong wo	orking	g teams for c	ollabora	ative r	research	and tea	aching	
OUTPUT	4.5. Enha industry.	nced quality	and q	luantity of re	esearch i	in inse	ect for fo	ods an	nd feeds r	elevant to the
OUTPUT INDICATOR and seminars held; resea				ferences		SOURCE OF VERIFICATION: Inception workshop report; conference report				
IMPLEMENTATION MILESTONES		a, accommoda on of worksho			ys), woi	rkshop	p consur	nables,	, certifica	tes,
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center D	Center Director & Principal Investigator/DCD								
DURATION: 1 Qtr Y1	C	Commenceme	ment: 1 _{st} Qtrs Y1				Completion: 1st Qtr Y1			
PRIMARY CONSTITU	ENTS: IUC	EA, GoK	GoK PARTICIPANTS: JOOUST-ACE Team and Partners							
	ormation of artners	strategic wor	king	groups for c	ollabora	tive te	eaching	will be	supporte	ed by all
FINANCIAL IMPLICATIONS										
Budget Line Analysis		1 stQtr		2ndQtr	3rdQtr		4thQt r			Total
1 Honoraria, accommodation workshop const certificates	· · ·			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
	collaborations.
Time Frame:	3rd Qtr Y1 – 20th Qtr Y20
Sub-Activity:	4.6 Participation in 2 joint annual regional ACE II Meetings

RESULT	Integrated collaborat	Integrated large scale interdisciplinary programs to intensify sharing and research collaboration with International Academic Partners.							
ACTIVITY	4.6. Incept teaching	4.6. Inception meeting and workshops to form strategic working groups for collaborative teaching							
OUTPUT	4.6. Enhar industry.	ced quality	and quant	ity of rese	earch in	insect for fo	ods and fe	eds relevant to the	
OUTPUT INDICATOR: and seminars held; resear			nces		SOURCE OF VERIFICATION: Inception workshop report; conference report				
IMPLEMENTATION MILESTONES		, accommod n of worksh			s), works	shop consur	nables, cer	tificates,	
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 5 Years	Co	ommenceme	ent: 1 _{st} Qt	Y1	(Completion: 20th Qtr Y5			
PRIMARY CONSTITUE and JOOUST	ENTS: IUCE	A, GoK	PARTIC	IPANTS:	JOOUS	T-ACE Tea	m and Par	tners	
	rmation of s rtners	trategic wor	king grou	ps for col	laborativ	e teaching	will be sup	ported by all	
FINANCIAL IMPLICATIONS	Budge	t from JOO	UST-ACI	E (USD) (provide a	annual budg	get for 5 ye	ars)	
Budget Line Analysis		1 _{st} Qtr	2ndQ tr	3rdQtr	4thQtr			Total	
1 Honoraria, accommodation, travel,workshop consumables, ce			0	2,500	2,500	0		5,000	
TOTALS 5,000						5,000			

Table 10.35:	Detailed Activity Sheet (5.1)
Key Activity:	5.0. Plan for management, governance
Time Frame:	1st -20th Qtr Y1 – Y5
Sub-Activity:	5.1. Incorporate Management Information System (MIS) for implementing
	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	e and efficier	nt service	delivery				
OUTPUT INDICATOR learning, examinations a		admissior	ns, teachin	g and	SOURCE OF VERIFICATION: Activities on Enterprise Resource Planning (ERP) software			
IMPLEMENTATION MILESTONES	5.1. Man the 5th ye		ormation	System (N	MIS) ful	ly incorporate	ed in the C	entre's activities by
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center D	Center Director & Principal Investigator/DCD						
DURATION: 5 Yrs	Commencement: 1st Qtr Y1				Completion: 20th Qtr Y5			
PRIMARY CONSTITU and JOOUST	EA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners							
		ation of Mar all partners.	agement	Informati	on Syste	em (MIS) into	the centre	e's activities will be
FINANCIAL IMPLICATIONS								
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQt	r		Total	
1 Procure and im Grant Manager	2,000						2,000	
TOTALS	2,000						2,000	

Table 10. 36:	Detailed Activity Sheet (5.2)
Key Activity:	5.0. Plan for management, governance
Time Frame:	1st -20th Qtr Y1 – Y5
Sub-Activity:	5.2. Adopt best practices in Financial Management and Procurement

RESULT	A sound fin	A sound financial system that meets all international best practices						
ACTIVITY	5.2. Adopt l	5.2. Adopt best practices in Financial Management and Procurement						
OUTPUT	5.2. Annual WACCI wi				cial rep	ports by June 30, 2015. The financial		
OUTPUT INDICATOR:	5.2. Two bi-a	nnual fina	ancial repo	orts		SOURCE OF VERIFICATION: ACE financial reports		
IMPLEMENTATION 5.2. Capacity building for best practices in financial management and procurement b MILESTONES Qtrs					ancial management and procurement by 20th			
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD							
DURATION: 5 Yrs	Со	Commencement: 1st Qtr Y1				Completion: 20th Qtr Y5		
PRIMARY CONSTITUE GoK and IUCEA	ENTS: JOOUS	ST,	PARTI	CIPANTS	S: JOO	OUST-ACE Team and Partners		
ASSUMPTIONS	l participants	will be co	ooperative	for effect	tive mo	onitoring and evaluation		
FINANCIAL IMPLICATIONS Budget from JOOUST-ACE (USD)								
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQt	tr Total		
1Capacity 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 15,000		

Table 10.37:	Detailed Activity Sheet (5.3)
Key Activity:	5.0. Plan for management, governance
Time Frame:	1st -20th Qtr Y1 – Y5
Sub-Activity:	5.3. Establish sound fiduciary practices

RESULT	A sound financial system that meets all international best practices										
ACTIVITY	5.3. Estab	olish sound t	fiduciary	practices							
OUTPUT		tioning inten incial proced				vill engage th	e JOOUS	Γ internal audit unit			
OUTPUT INDICATOR: financial transactions and	5.3. Evidend one compr	ce of pre-au ehensive fin	dit proced ancial au	lures on dit report				FICATION: 5.3 Audit Reports			
IMPLEMENTATION MILESTONES	DN 5.3 Internal audit oversight ensured by 31.12.2020										
PROCUREMENT	JOOUST	JOOUST Internal Audit will follow due process in auditing ACE									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD										
DURATION: 5 Yrs	DURATION: 5 Yrs			Commencement: 1st Qtr Y1				Completion: 20th Qtr Y5			
PRIMARY CONSTITUE and JOOUST	NTS: IUC	EA, GoK	PART Partner		S: JOOL	JST Audit, JO	DOUST-A	CE Team and			
ASSUMPTIONS	OUST Inte	ernal Audit	Directora	te will fol	low due	diligence at a	all stages o	of the audit			
FINANCIAL IMPLICATIONS Budget from JOOUST-ACE (USD)											
Budget Line Analysis	1stQtr	2ndQtr	3rdQtr	4thQtr	5thQtr	6thQtr	Total				
1 Stakeholders trai workshops	1,500	3,000	1,500	1,500			7,500				
TOTALS	1,500	3,000	1,500	1,500			7,500				

Table 10.38:	Detailed Activity Sheet (5.4)
Key Activity:	5.0. Plan for management, governance
Time Frame:	3rd, 8th, &13th Qtrs Y1-Y3
Sub-Activity:	5.4. Procure and maintain vehicles

RESULT	An effective means of travel provided for student's visit to research sites									
ACTIVITY	5.4. Procure and maintain vehicles									
OUTPUT	5.4. Effective means of travel provided for student's visit to research sites. car] will be procured at a cost of USD 39,500 and 500 each to facilitate students' travels to research sites.									
OUTPUT INDICATOR:	3vehicles p	procured and	by Y5	SOURCE OF VERIFICATION: 5.4. Procurement Document, Registration Documents						
IMPLEMENTATION MILESTONES	Procurem	Procurement of car by Y1								
PROCUREMENT	N/A	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: Y1 – Y3	C	Commencem	ent: 3rd Qtr Y	¥1	Completion: 13th Qtr Y3					
PRIMARY CONSTITUI	ENTS: ACE	E-JOOUST	PARTICIE	PANTS: JOO	OOUST Procurement Unit,					
ASSUMPTIONS	OUST Pro	curement Un	nit will facili	tate the entire	e procureme	ent proces	s			
FINANCIAL IMPLICATIONS	Budg	et from JOC	OUST-ACE (USD)						
Budget Line Analysis		1 stQtr	2ndQtr	3rdQtr	4thQ tr		Total			
1 Procure a vehicl cabin pick-up)	e [double			39,500			39,500			
2 Maintenance of vehicles (fuel ar servicing)				500			500			
TOTALS				40,000			40,000			

Table 10.39	Detailed Activity Sheet (5.5)
Key Activity:	5.0. Plan for management, governance
Time Frame:	1st -20th Qtr Y1-Y5
Sub-Activity	5.5. Centre operations

RES	ULT	Effecti	Effective and efficient operation of centres activity								
ACT	IVITY	5.5. Ce	5.5. Centre operations								
OUT	PUT	Function	Functioning ACE under the university								
OUT	PUT INDICATOR:	Accesso	ries and Statior	aries availe	đ	Computer	SOURCE OF VERIFICATION: Computer accessories; stationary; service delivered				
	LEMENTATION ESTONES										
PRO	CUREMENT	Γ Ν/Α									
FOR	PONSIBILITY LEMENTATION										
DURATION: 5 Years Comm				ent: 1 _{st} Qtr Y	/1	Completion	Completion: 20th Qtr Y5				
PRIM	ARY CONSTITUE	ENTS: JC	OUST ACE	PARTICI	PARTICIPANTS: Associate faculty, JOOUST						
ASSU	UMPTIONS	OUST w	vill be supportiv	ve at all stage	es of the pr	ocess					
	ANCIAL LICATIONS	Bu	dget from JOO	UST-ACE (USD)						
Budg Analy	get Line ysis		1stQtr	2ndQtr	3rdQtr	4thQtr	Total				
1	Stationeries & Communication	3,500	2,500	2,500	2,500	11,000					
2	Computer accessories/mair	Computer accessories/maintenance		2,500	2,500	2,500	11,000				
3	Hospitality & of maintenance	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)
Key Activity:	5.0. Plan for management, governance.
Time Frame:	1st -20th Qtr Y1-Y5
Sub-Activity:	5.6. Centre Staff

RESULT	ULT Centre staff recruited and designated incentive structure for ACE								
ACTIVITY	5.6. Recru	5.6. Recruit and train Centre staff							
OUTPUT	5.6. Centr	5.6. Centre staff recruited, trained and assigned duties.							
OUTPUT INDICATOR:	5.6 Four ce	ntre staff re	rained		SOURCE OF VERIFICATION: Staff records and training report				
IMPLEMENTATION 5.6 Salaries for Centre staff up to 20th Qtr Y5 MILESTONES 5.6 Salaries for Centre staff up to 20th Qtr Y5									
PROCUREMENT	N/A	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 5 Years	С	ommencem	ent: 1 _{st} Qtr Y	71	Completion: 20	Completion: 20th Qtr Y5			
PRIMARY CONSTITUT	ENTS: JOO	UST	PARTICIP	ANTS: Ass	ociate faculty, JOC	OUST			
ASSUMPTIONS	OUST will	be supporti	ve at all stage	es of the pro	cess				
FINANCIAL IMPLICATIONS	Budge	et from JOC	OUST-ACE (USD)					
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQtr		Total		
1 Travel and train salaries and ben advertisement		27,311	49,500	49,500	49,500		148,811		
TOTALS 27,311 49,500 49,500 49,500 148,811									

ıb-Ac					framework evaluation			agement, adı systems	ministrative,			
RESU	ULT		Availability of a legal framework for carrying out the three ACE objectives for Sustainable Use of Insects as Food and Feed									
ACT	IVITY		5.7. Put in place governance framework, financial management, administrative, procurement, monitoring and evaluation procedures and systems									
OUT	PUT		5.7. Review Committee established; Management and Administrative team established; ACE account opened; Financial Management and Procurement procedures formulated.									
Orgai	PUT INDICATO nogram develope al developed; an	d; a Fina	ancial N	Aanagemei	nt and a Proc			Minutes of Forganogram;	F VERIFICATION: 5.7 C meetings; ACE ACE project bank account ncial Management and manuals			
	LEMENTATION ESTONES											
PRO	CUREMENT	N//	4									
FOR	PONSIBILITY LEMENTATION		nter Dii	rector & Pr	incipal Inves	stigator/DCl	D					
DURATION: 1 year				ommencen	h Qtr Y1							
	IARY CONSTIT	TUENTS	: IUCE	UCEA, GoK PARTICIPANTS: JOOUST-ACE Team and Partners								
ASSU	UMPTIONS		ticipants will be cooperative for effective, governance, financial management, and pring and evaluation									
	ANCIAL LICATIONS		Budge	et from JOC	DUST-ACE	(USD)						
Budg Analy	get Line ysis			1stQtr	2ndQtr	3rdQtr	4 _{th}	Qtr	Total			
1	Review com	nittee		5,000					5,000			
2	Open ACE B	ank Acc	ount	100								
3	Financial ma	view & develop nancial management and ocurement procedures		7,450	5,000	5,000	5,0	000	22,450			
4		evelop monitoring & aluation procedures & stems			5,000	5,000	5,0	000	22,450			
TOT				20,000	10,000	10,000	10	,000	50,000			

Table 10.42	: Detailed Activity Sheet (5.8)
Key Activity	: 5.0. Plan for management and governance
Time Frame	: 1st -20th Qtr Y1-Y5
Sub-Activity	: 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. S	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. Fo	orty six (46	5) ACE im	plementatio	on	SOURCE O Record of m		FICATION: 5.8		
IMPLEMENTATION 5.8 230 ACE implementation meetings held by Y5 MILESTONES 5.8 230 ACE implementation meetings held by Y5											
PROC	CUREMENT	N/A									
FOR	RESPONSIBILITY FOR IMPLEMENTATION										
DUR	ATION: 5 Years		Comme	encement:	1st Qtrs Y1		Completion: 20th Qtr Y5				
	IARY CONSTITU OOUST	ENTS:	IUCEA, O	GoK PA	ARTICIPAN	NTS: JOO	UST-ACE Partr	ners			
ASSU	JMPTIONS	ll partici	ipants will	be cooper	ative for ef	fective AC	CE implementat	ion			
	NCIAL JCATIONS	В	udget fror	n JOOUST	n JOOUST-ACE (USD)						
Budge Analy	et Line /sis			1stQtr	2ndQtr	3rdQtr	4thQtr		Total		
1	Centre meeting	8		100	100	100	4,100		4,400		
2	(15 pple, 1 mee	Centre Advisory Board (CAB) (15 pple, 1 meeting/yr, Return tickets (15 people)					20,000		20,000		
TOTA	ALS			100	100	100	24,100		24,400		

Table 10.43	: Detailed Activity Sheet (5.9)
Key Activity	: 5.0. Plan for management and governance
	: $1_{st} - 20_{th} Qtr Y1-Y5$
Sub-Activity	: 5.9. Schedule and hold ACE Monitoring and Evaluation (M&E) Meetings

г

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 4th Qtr Y1 and December 20th Qtr Y5 to monitor adherence to set objectives, and monitor performance for continuous progress and improvement.								
OUTPUT INDICATOR: 5.9. Internal and External ACE M&E meetings SOURCE OF VERIFICATION: 5 held Record of minutes, M&E Fact Sheet										
IMPLEMENTATION MILESTONES5.9.Conduct 10 internal M&E (quarterly) and Conduct 2 external M &E (mid-term and final) by Y5										
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION										
DURATION: 5 Years	С	ommencer	ment: 1 _{st} Ç	Qtr Y1	(Completion:	20th Qtr Y5			
PRIMARY CONSTITU and JOOUST	ENTS: IUCE	A, GoK	PART	ICIPANTS:	JOOU	ST-ACE Te	am and Partners			
ASSUMPTIONS	All participant	s will be c	ooperative	e for effectiv	ve moni	toring and ev	valuation			
FINANCIAL IMPLICATIONS	Budge	et from JO	OUST-AC	CE (USD)						
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQt r		Total			
1 Conduct 10 Inte (quarterly)	ernal M&E	5000	5000	5000	5000		20,000			
2 Conduct extern (mid- term and team).			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. Des	5.10. Design, host and manage a custom website for the centre								
OUTPUT		5.10. Enhanced communication, information sharing and learning activities. Accessibility to ICT resources for teaching, learning, research and dissemination								
OUTPUT INDICATOR: learning tools	Availabilit	ey of custon	SOURCE OF VERIFICATION: Number of computers and accessories procured; Broad band connectivity; Number of programs on ICT platform							
IMPLEMENTATION MILESTONES	5.10. Cus	5.10. Custom website designed and ICT infrastructure established by 31.12.2020								
PROCUREMENT	N/A									
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD									
DURATION: 5 Years	(Commencer	ment: 1 _{st} Ç	Qtr Y1	Completion: 20th Qtr Y5					
PRIMARY CONSTITUT	ENTS: IUC	CEA, GoK	PART	FICIPANT	TS: JOC	UST-ACE T	eam and P	artners		
ASSUMPTIONS	stablishmen	t of ICT re	sources w	ill be supp	ported b	y all participa	ants/partne	ers		
FINANCIAL IMPLICATIONS	Budg	get from JO	OUST-AG	CE (USD)						
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQt	r		Total		
1Design and deve website (50)	elop the	500						500		
2 Operationalize t website	he 1,500 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)

	[
RESULT	Local, r	Local, regional and international recognition							
ACTIVITY	5.11 Pro	5.11 Promote the Centre							
OUTPUT	5.11 En	5.11 Enhanced information sharing in Insect science and sustainability of the centre							
OUTPUT INDICATOR: Promotion materials on the website centre SOURCE OF VERIFICATION Brochures Brochures									
IMPLEMENTATION MILESTONES	The cen	The centre promoted by Y5							
PROCUREMENT	N/A								
RESPONSIBILITY FOR IMPLEMENTATION	Center Director & Principal Investigator/DCD								
DURATION: 5 Years	Commencement: 1st Qtrs Y1 Completion: 20th Qtrs Y5								
PRIMARY CONSTITUENTS: IUCEA, GoK and JOOUST PARTICIPANTS: JOOUST-ACE Team and Partners									
ASSUMPTIONS Pr	omotion of the centre will be supported by all participants/partners								
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)								
Budget Line Analysis		1 stQtr	2ndQtr	3rdQtr	4thQtr	r Total			
1 Develop market strategy						2,500			
2 Develop promotional materials		2,500	1,000	1,000	1,000	5,500			
TOTALS	5,000	1,000	1,000	1,000	8,000				

Xey Activity: Fime Frame: Sub-Activity:	Detailed Activity S 6.0. Plan for manag 1 _{st} -20 _{th} Qtr Y1 -Y5 6.1. Generate revent government subsidio products and service	gement, govern 5 ue from intern es, consultanci	al and exter ies, income	mal sources (s			
RESULT	Sustained Centre of	of Excellence					
ACTIVITY	6.1 Generate reven	ue from interna	l and externa	ll sources			
OUTPUT	6.1. Enhanced capa generated revenue	6.1. Enhanced capacity for sustainability of the center: Incubation centers, enterprises and generated revenue					
OUTPUT INDICATOR: and externally	UT INDICATOR: 6.1. Revenue generated internally ternally SOURCE OF VERIFICATION: Records of internally and externally generated revenue by the ACE						
IMPLEMENTATION MILESTONES	Amount of revenue	Amount of revenue internally and externally by the ACE					
PROCUREMENT	N/A	N/A					
RESPONSIBILITY FOR IMPLEMENTATION							
DURATION: 5 Years	Commencement: 1st Qtr Y1 Completion: 20th Qtr Y5					(5	
PRIMARY CONSTITUENTS: IUCEA, GoK and JOOUST PARTICIPANTS: JOOUST-ACE Team and Partners							
ASSUMPTIONS	onors will buy into th	e vision of JOO	UST-ACE.				
FINANCIAL IMPLICATIONS Budget from JOOUST-ACE (USD)							
Budget Line Analysis	1stQtr	2ndQtr 3r	dQtr 4thQ	tr		Total	
1 Consultancies			1,50	0		1,500	
2 Fees		2,00	0		2,000		
3 Commercial technologies 1,0			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- Y5

Sub-Activity : 6.2. Support faculty to submit three major grant applications

RESULT	Increased	Increased research in insect science and publications in recognized peer-reviewed journals						
ACTIVITY	6.2. Grant	6.2. Grant proposals submitted						
OUTPUT	also gain i	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.						
OUTPUT INDICATOR: 6.2. 10 Research publication per year in peer reviewed journals					SOURCE OF VERIFICATION: Research Publications folder			
IMPLEMENTATION MILESTONES	6.2. 40 res	earch pub	lication by	Y5				
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	Center Director & Principal Investigator/DCD						
DURATION: 5years	Co	Commencement: 1st Qtr Y1 Com				Completion:	20th Qtr Y	75
PRIMARY CONSTITUT	PRIMARY CONSTITUENTS: IUCEA, GoK and JOOUST PARTICIPANTS: JOOUST-ACE Team and Partners						rtners	
ASSUMPTIONS	Publication of peer-reviewed research findings will be supported by all participants/partners							
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)							
Budget Line Analysis		1stQtr	2ndQtr	3rdQtr	4thQt	r		Total
1 Incentives for g teams	es for grant making		500	500	500			2,500
2 Submission of g	100	150	150	100			500	
TOTALS							3,000	

:Detailed Activity Sheet (6.	3)
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Table 10.48Key ActivityTime FrameSub-Activity

: 6.0 Sustainability.

: 1st -20th Qtr Y1-Y5

: 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 kr	Student knowledge generation and transfer						
ACTIVITY	6.3. Suppo	6.3. Support scientific conference presentations						
OUTPUT	Enhancing research	capacity	building fo	or students	leadin	ng for improved knowledge and skills in		
OUTPUT INDICATOR: research	6.3. Academ	ic improv	ed knowle	edge and sl	cills in	SOURCE OF VERIFICATION: Report of skills audit		
IMPLEMENTATION MILESTONES	6.3. Suppo	ort staff and	d students	' conferen	ce pres	sentations by Y5		
PROCUREMENT	N/A							
RESPONSIBILITY FOR IMPLEMENTATION	Center Dir	Center Director & Principal Investigator/DCD						
DURATION: 5years	Commencement: 1st Qtr Y1 Completion: 20th Qtr Y5					Completion: 20th Qtr Y5		
PRIMARY CONSTITUE and JOOUST	PRIMARY CONSTITUENTS: IUCEA, GoK and JOOUST PARTICIPANTS: JOOUST-ACE Team and Partners					UST-ACE Team and Partners		
ASSUMPTIONS	ll participant	l participants will be cooperative for effective monitoring and evaluation						
FINANCIAL IMPLICATIONS	Budget from JOOUST-ACE (USD)							
Budget Line Analysis	1stQtr 2ndQtr 3rdQtr 4thQtr Total				tr Total			
1 Transport cost, 1 subsistence cost	1,000	1,500	1,500	1,000	0 5,000			
TOTALS	TOTALS 1,000 1,500 1,000 5,000					0 5,000		