



WORLD BANK GROUP

Eastern and Southern Africa Higher Education Centers of Excellence (ACE II)

CENTER OF EXCELLENCE IN PHYTOCHEMICALS, TEXTILE AND RENEWABLE ENERGY (PTRE)

[ACE II proposal number ESC 59]

Implementation Plan

2017/18– 2021/2022

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LIST OF ABBREVIATIONS

ACE:	African Center of Excellence
DVC AR&E:	Deputy Vice Chancellor Academics, Research and Extension
IGERD:	Institute of gender, equity, research and development
KIRDI:	Kenya Industrial Research & Development Institute
KVDA:	Kerio Valley Development Authority.
MoU:	Memorandum of Understanding
NUST:	National University of Science and Technology
PTRE:	Phytochemicals, Textile and Renewable Energy
REAL:	RIVATEX East Africa Limited
RUFORUM:	Regional Universities Forum for Capacity Building in Agriculture
SBPS:	School of Biological & Physical Sciences
SOE:	School Of Engineering
STEM:	Science, Technology, Engineering and Mathematics

1. BRIEF NARRATIVE SUMMARY

The manufacturing sector is considered to be contributing only 10%¹ of Kenyan Gross Domestic Product. However, the sector is projected to play a critical role in the economic growth of the country, where, an annual growth rate of 10% is envisaged under Kenya Vision 2030¹. This achievement would require an increase in highly skilled personnel in the area of Science, Technology, Engineering and Mathematics (STEM) to facilitate manufacture of skill-intensive products of high value and quality. However, inadequacy in personnel with advanced training in textiles, phytochemicals and renewable energy fields has been confirmed. Furthermore, it is identified in the National Commission for Science, Technology and Innovation 2014-2018 Strategic Plan² as being one of the contributing factors hindering fast industrialization of Kenya. This scenario is not unique to Kenya, but it is a regional trend with similar shortage in skilled manpower reported in all Eastern and Southern Africa countries³. To address the shortage, the Center will support the training of postgraduate students to work in textile related industries, research institutes, and education sector locally and in the region. For instance, the textile sector currently comprises 23 textile mills, 170 large scale garment manufacturing units, 8 ginneries, 9 accessories manufacturers and over 75,000 micro and small companies^{4, 5}. The existing textile mills operate using outdated technology and suffer from low levels of skilled labor and low productivity⁶. The graduate from the ACE-PTRE would therefore provide the expertise to overcome these challenges making the textile sector, which is on upswing growth, more competitive thus creating employment opportunities in the country as envisioned in Kenyan vision 2030. In Kenya and in the region, there are more than 16 universities and university colleges offering textile related degrees and diploma courses⁷. These institutions will absorb most of the ACE-PTRE graduates. Other employment opportunities for the Centre graduates will be provided by the more than 10 research institutes and standardization bodies in the region that deals with textiles. Strategically, for the Centre to meet the requirement on regional and female enrollment students shall be supported through full and/or partial scholarships. The number of female admitted in the first year will be at 25% and increased to 30% in the subsequent years. To attract foreign students, the Centre will ensure security, accommodation facilities, children facilities and quality education is provided. The pathway showing the cumulative number of students is in Appendix I. In particular, full scholarships will be used to assist weak partners and to attract regional and female. Partial scholarships will be used to cover for internship and research cost or only fees. Furthermore, at least 6 short courses shall be offered to faculty and professionals from industry, government and business sector. The short courses shall be developed after performing a need assessment to build capacity within Centre, industries and in institutions of higher learning in some of these areas: Industrial production, Phytodyes Technology, Material

Characterization Techniques, Installation and maintenance of renewable energy devices, Innovation and entrepreneurship in Science and Engineering, Patenting and intellectual property rights.

To link phytochemicals to the textile industry, phytodyes will be explored from natural products. A degree in Analytical Chemistry will be offered with research focused on phytochemistry (phytodes/natural dyes). The production of synthetic dyes currently used in Kenya is dependent on petrochemical source; most of which usually contains toxic or carcinogenic amines that are not eco-friendly. Given the global consumption of textiles, estimated at around 30 million tonnes, and expected to be growing at the rate of 3% per annum, the coloration of this huge quantity of textiles involves around 700,000 tonnes of dyes that is accompanied with release of a vast amount of unused and unfixed synthetic colorants into the environment. As industrialization advances, the energy demand is expected to rise correspondingly, requiring better energy management with new technologies in energy generation and distribution. Key challenges in textile sector in its optimization revolve around its processing energy sources.

It is envisioned that the Center will pool a vast expertise consisting of National, Regional and International partners, and shall deliver on its mandate through the following outcomes:

- Admitting and training 30 PhD students and 60 MSc students in areas of manufacturing involving Analytical Chemistry, Textiles and Renewable Energy.
- By the end of the third year of the project, teaching and research facilities would have been procured, installed and commissioned.
- By the end of project, a new curriculum for MSc in phytochemistry would have been developed and ongoing MSc and PhD programs reviewed to support training needs
- ICT Upgrading at PTRE Center for enhanced learning environment.
- Host at least 1 international conference.
- At least 4 community outreach services/extension provided.
- At least 3 Re-tool workshops offered to faculty in areas relevant to the ACE curriculum delivery and supervision.
- At least fifty (50) publications made by the end of the project period.
- At least 50 student/staff will benefit from exchange programs.
- At least 3 major meetings held with industrial linkage committee together with stakeholders.
- At least 5 self-evaluations workshops done by the end of the project period together with stakeholders.
- At least 4 annual meeting held with partner countries by the end of the project period.
- Collaboration with private sector/industries will grant internships to 90 ACE students and staff
- At least 4 short courses relevant to stakeholders needs developed and offered.

- At least 6 research project collaborations in the areas of Phytochemicals, Textiles and Renewable Energy supported.

Moi University has formalized interactions with Toyota Tsusho East Africa, which will enable commercial dye production plant from phytochemicals. Through collaboration with local private industry partners like RIVATEX East Africa Limited (REAL) and Kenya Industrial Research & Development Institute (KIRDI) will provide places for industrial attachments and enable the students ‘experience experiential training with industry. In addition, Moi University is collaborating with Donghua University, China in staff exchange, joint conferences, student exchange and joint research. The university has benefited from visiting members of faculty who are Africans based in the diaspora. For instance the School of Biological and Physical Science has an adjunct Prof. Albert Korir from Drury University, United States of America who will continue to be instrumental on curriculum improvement, student and staff mentorship in the Center.

¹Kenya Vision 2030, A globally Competitive and Prosperous Kenya, (2007), Government of Kenya

²National Commission for Science, Technology and Innovation 2014 - 2018 Strategic Plan, Government of Kenya

³African Agenda 2063, “The Africa We Want”, (2014), The African Union Commission

⁴ACTIF, (2013), “Policy Research on the Kenyan Textile Industry

⁵Kenya Apparel and Textile Industry, “Diagnosis, Strategy and Action Plan”

⁶ACTIF, (2012), “Analysis of Textile & Clothing Training Institutions in the East-Southern Africa”

⁷The Kenyan Textile and Fashion Industry, “The role of fashion designers and small tailors in the fibre to fashion value chain”

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

Table 1: Overview of first project year (this table is closely linked to section 7, as each activity row here in table1 will require a separate activity sheet in section 7)

MOI UNIVERSITY			
AFRICA CENTRE OF EXCELLENCE (ACE II) PTRE			
Result/Activity/Task	Budget Estimate US		
	ACE Leader	Partners	TOTAL
Achieving excellence in training	Component total ACE LEADER	(Component total partners)	(Total of component)
1.0 Set-up institutional framework for commencement of the ACE			
1.1 Negotiate and sign funding contract	0	-	-
1.2 Put in place operational manual for ACE administration,: procurement, financial management, independent evaluation committee for award of scholarships and research grants, monitoring and evaluation	5000	-	5,000
1.3 ACE Implementation team meeting on world bank procedures	15000	6,200	21,200
1.4 Community and stakeholders sensitization	3000	-	3,000
1.5 Refurbish Centre Office Building	160000	-	160,000
1.6 Conduct seminars for self-evaluation of project progress, needs assessment for short courses, graduate tracer studies and 5 industrial linkage committee meetings in 5 years (1 per year)	28200	-	28,200
1.7 Collecting and analyzing data for technical reporting and M&E on education and research	300	-	300
1.8 Plan and hold ACE implementation meetings	2000	-	2,000
1.9 Partners annual meeting	-	-	-
1.10 Operation Cost	44,000	-	44,000
SUB TOTAL	257,500	6,200	263,700
2.0. Strengthen education capacity excellence - quality and productivity			
2.1 Gender sensitization on postgraduate training in the areas of stem	-	-	-
2.2 Advertisement of activities	5,000	-	5,000
2.3 MSc Fellowships	21925	53920	75,845
2.4 PhD Fellowships	13800	80100	93,900
2.5 ICT Upgrading: , E-platforms establishment	50,000	-	50,000
2.6 Re-tool faculty in areas relevant to the ACE curriculum delivery and supervision	10,500	3,500	14,000
2.7 Develop short courses curriculum	6,500	-	6,500
2.8 E-resource purchase/subscription (International journal, books, databases)	-	-	-

2.9 Offer short courses and seminars	15,000	-	15,000
2.10 Maintenance of online journal	-	-	-
2.11 Institutional capacity development in governance, data system, leadership and monitoring and evaluation (Management and leadership workshop)	8,400	5,030	13,430
SUB TOTAL	131,125	142,550	273,675
3.0 Education Capacity & Development Impact			
3.1 Cultural Seminars and language training	1,000	-	1,000
3.2 Student Course evaluation	-	-	-
3.3 Broaden students' knowledge through 1 month Internships for MSc and PhD students	-	-	-
3.4 Joint International supervision	-	-	-
3.5 Visiting professors/external expertise	10,000	-	10,000
3.6(a) Curriculum review for MSc and PhD ongoing program	-	-	-
3.6(b) Development of a new MSc program in phytochemistry	4,000	-	4,000
3.7 Benchmarking with partnership of Applied Sciences, Engineering and Technology (PASET) and partners for peer review for accreditation	12,100	-	12,100
SUB TOTAL	27,100	-	27,100
4.0 Strengthen Research Capacity excellence – quality and productivity			
4.1 Upgrade of Textile laboratory and Phytochemical research laboratory ,renewable energy and generator back up	318,656	10,000	328,656
4.2 Laboratory equipment installation, commissioning and training	10,000	-	10,000
4.3 Maintain service and calibrate academic infrastructure/facilities for learning and research	-	-	-
4.4 Purchase of laboratory consumables and software's	22,000	-	22,000
4.5 Departmental and school Post graduate (MSc & PhD) review meetings/seminars	-	-	-
4.6 Outreach services to remote areas/marginalized areas	-	-	-
4.7 Establish new partnerships (MOUs) and strengthen existing ones in the area of teaching & research	20,000	-	20,000
4.8 Faculty /PhD student Mentorship on specialized skills (internships, mobility)	30,000	3,500	33,500
4.9 Support faculty to submit Grant proposals	5,000	-	5,000
4.10 Hold specialized discipline thematic Workshops	-	-	-
4.11 Faculty/Students collaborative research	10,000	2,000	12,000
4.12 Participation in external seminar workshop, conference and short courses	10,000	3,200	13,200
4.13 Publish research findings in and peer-reviewed journals	-	-	-
4.14 Maintain ,insurance and service research vehicles (4X4 vehicles, minibus)	10,000	-	10,000
4.15 External lab testing specimens/samples	-	-	-
4.16 Procurement of 4X4 extended Land cruiser vehicle for ACE Centre field activities and meetings	74,000	-	74,000
4.17 Procurement of mini bus for students and faculty travel	-	-	-

4.18 Trainings, benchmarks and exchange for Center accountant, procurement, administrator, social and environmental safeguard officer and support staff working under ACE	5,000	-	5,000
SUB TOTAL	514,656	18,700	533,356
5.0 Strengthen education and research capacity (through increased financial sustainability) and demonstration of value to students and partners			
5.1 Merchandise of innovations and research commercialization	-	-	-
5.2 Application of project grants	-	-	-
5.3 Recruitment of self-sponsored students into the ACE programs	-	-	-
5.4 Continuation of Alumni	-	-	-
5.5 Continuing professional association	-	-	-
5.6 Authentication and standardization of cottage products	-	-	-
5.7 Consultancy services	-	-	-
5.8 charge fees on the usage of laboratory facilities by non-ACE user	-	-	-
5.9 Renting of Video Conferencing, and project vehicles for teaching and research purposes	-	-	-
5.10 patents	-	-	-
5.11 Host international conference	-	-	-
SUB TOTAL	-	-	-
6.0 Observation of best practices in ACE financial operation			
6.1 Financial reporting	-	-	-
6.2 Finance Audit	500	-	500
6.3 Ensure efficient, transparent financial management	-	-	-
6.4 Returns on students research funds from sponsors	-	-	-
SUB TOTAL	500	-	500
7.0 Observation of best practices in ACE procurement operation			
7.1 Procurement audit	500	-	500
7.2 Ensure efficient, timeliness and transparency of procurement process	-	-	-
SUB TOTAL	500	-	500
TOTALS	931,381	167,450	1,098,831
1% contingency	9,314	1,675	10,988
TOTAL BUDGET YEAR 1	940,695	169,125	1,109,819

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	Result/Activity/Task	Budget Estimate (US\$)														
		KIRDI	Rivatex	KVDA	TT	KEBS	UOE	NUST	NM	BU	UG	UM	UZ	SRN	RUF	Total
1	Set-up institutional framework for commencement of the ACE															
1.1	Negotiate and sign funding contract	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.2	Put in place operational manual for ACE administration,; procurement, financial management, independent evaluation committee for award of scholarships and research grants, monitoring and evaluation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.3	ACE Implementation team meeting on world bank procedures	400	400	400	400	400	0	1000	1000	0	1200	0	0	0	1000	6200
1.4	Community and stakeholders sensitization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5	Refurbish Centre Office Building	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.6	Conduct seminars for self-evaluation of project progress (2 per year), needs assessment for short courses, graduate tracer studies and 5 industrial linkage committee meetings in 5 years (1 per year)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.7	Collecting and analyzing data for technical reporting and M&E on education and research	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.8	Plan and hold ACE implementation meetings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.9	Partners annual meeting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.1	Operation Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	400	400	400	400	400	0	1000	1000	0	1200	0	0	0	1000	6200
2	Strengthen education capacity excellence - quality and productivity															
2.1	Gender sensitization on postgraduate training in the areas of stem	0	0	0	0		0	0	0	0	0	0	0	0	0	0
2.2	Advertisement of activities	0	0	0	0		0	0	0	0	0	0	0	0	0	0
2.3	MSc Fellowships	0	11290	0	0	0	0	5340	0	10650	5340	10650	5325	5325	0	53920
2.4	PhD Fellowships	6900	0	0	0	6300	6900	7500	0	15000	7500	15000	7500	7500	0	80100
2.5	ICT Upgrading: , E-platforms establishment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.6	Re-tool faculty in areas relevant to the ACE curriculum delivery and supervision	500	0	0	0	0	0	1000	0	1000	1000	0	0	0	0	3500
2.7	Develop short courses curriculum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.8	E-resource purchase/subscription (International journal, books, databases)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.9	Offer short courses and seminars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1	Maintenance of online journal	0	0	0	0	0	0	0	0	0	0	0			0	0

2.11	Institutional capacity development in governance, data system, leadership and monitoring and evaluation (Management and leadership workshop)	0	0	0	0	0	0	1000	0	1000	1000	0	0	0	2030	5030
	Subtotal	7400	11290	0	0	6300	6900	14840	0	27650	14840	25650	12825	12825	2030	142550
3	Education Capacity & Development Impact															
3.1	Cultural Seminars and language training	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.2	Student Course evaluation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.3	Broaden students' knowledge through 1 month Internships for MSc and PhD students	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.4	Joint International supervision	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.5	Visiting professors/external expertise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.6	(a) Curriculum review for MSc and PhD ongoing program	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(b) Development of a new MSc program in phytochemistry for MSc and PhD ongoing program	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.7	Benchmarking with partnership of Applied Sciences, Engineering and Technology (PASET) and partners for peer review for accreditation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Strengthen Research Capacity excellence – quality and productivity															

4.1	Upgrade of Textile laboratory and Phytochemical research laboratory ,renewable energy and generator back up	0	10000	0	0	0	0	0	0	0	0	0	0	0	0	10000
4.2	Laboratory equipment installation,commissioning and training	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.3	Maintain service and calibrate academic infrastructure/facilities for learning and research	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.4	Purchase of laboratory consumables and software's	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5	Departmental and school Post graduate (MSc & PhD) review meetings/seminars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.6	Outreach services to remote areas/marginalized areas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.7	Establish new partnerships and strengthen existing ones in the area of teaching & research	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.8	Faulty /PhD student Mentorship on specialized skills (internships,mobility)	500	0	0	0	0	0	3000	0	0	0	0	0	0	0	3500
4.9	Support faulty to submit Grant proposals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.1	Hold specialized discipline thematic Workshops	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.11	Faculty/Students collaborative research	0	0	0	0	0	0	2000	0	0	0	0	0	0	0	2000
4.12	Participation in external seminar workshop, conference and short courses	300	300	300	300	0	0	0	0	1000	1000	0	0	0	0	3200
4.13	Publish research findings in and peer-reviewed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	journals															
4.14	Maintain insurance and service research vehicles (4X4 vehicles, minibus)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.15	External lab testing specimens/samples	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.16	Procurement of 4X4 extended land cruiser vehicle for ACE center field activities and meetings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.17	Procurement of mini bus for students and faculty travel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.18	Trainings, benchmarks and exchange for Center accountant, procurement, administrator, social and environmental safeguard officer and support staff working under ACE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	800	10300	300	300	0	0	5000		1000	1000	0		0	18700	
5	Strengthen education and research capacity (through increased financial sustainability) and demonstration of value to students and partners															
5.1	Merchandise of innovations and research commercialization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.2	Application of project grants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.3	Recruitment of self-sponsored students into the ACE programs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.4	Continuation of Alumni	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.5	Continuing professional association	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.6	Authentication and standardization of cottage products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.7	Consultancy services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.8	Charge fees on the usage of laboratory facilities by non-ACE user	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.9	Renting of Video Conferencing, and project vehicles for teaching and research purposes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.1	Patents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.11	Host international conference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Observation of best practices in ACE financial operation															
6.1	Financial reporting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.2	Finance Audit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.3	Ensure efficient, transparent financial management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.4	Returns on students research funds from sponsors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Observation of best practices in ACE procurement operation															
7.1	Procurement audit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.2	Ensure efficient, timeliness and transparency of procurement process	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	GRAND TOTAL	8600	21990	700	700	6700	6900	20840	1000	28650	17040	25650	12825	12825	3030	167450

KEY

KIRDI: Kenya Industrial Research & Development Institute

RIVATEX: Rift Valley Textile East Africa Limited (REAL)

KVDA: Kerio Valley Development Authority (KVDA)

TT: Toyota Tsusho

KEBS: Kenya Bureau of standards

UOE: University of Eldoret

NUST: National University Science Technology

NM: Nelson Mandela

BU: Busitema University

UG: University of Gezira

UM: University of Malawi

UZ: University of Zambia

SRN: South Range Nyanza

RUF: RUFORUM

3. TIMING OF PLANNED ACTIVITIES FOR ENTIRE PROJECT PERIOD (GANTT CHART)

Table 3: Work plan for the project

ACTIVITIES	YEAR 1 (2016/2017)				YEAR 2 (2017/2018)				YEAR 3 (2018/2019)				YEAR 4(2019/2020)				YEAR 5 (2020/2021)			
	Q 1	Q 2	Q 3	Q 4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q 1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.0 Set-up institutional framework for commencement of the ACE																				
Negotiate and sign funding contract																				
Put in place operational manual for ACE administration: procurement, financial management, independent evaluation committee for award of scholarships and research grants, monitoring and evaluation																				
ACE Implementation team meeting on world bank procedures (project inception workshop)																				
Community and stakeholders sensitization																				
Refurbish Center Buildings and training facilities																				
Conduct seminars for self-evaluation of project progress, needs assessment for short courses, graduate tracer studies and 5 industrial linkage committee meetings in 5 years (1 per year)																				
Collecting and analyzing data for technical reporting and M&E on education and research																				
Plan and hold ACE implementation meetings																				
Partners annual meeting																				
Center operations																				
2.0. Strengthen education capacity excellence - quality and productivity																				

4. IMPLEMENTATION ARRANGEMENTS

4.1 Guiding rules and regulation

(Briefly describe the rules that govern the ACE and its partnerships, including safeguarding against fraud/corruption)

Moi University is a public institution of higher learning established by an Act of Parliament of 1984, and chartered in 2013 under the Universities Act 2012. It is governed by the University Council, which is responsible for the overall policy, human and financial resources, and physical establishment. The Moi University Africa Center of Excellence in Phytochemicals, Textiles and Renewable Energy (ACEII-PTRE) is to operate in accordance with the Centre's operation manual which the University is to adopt. The provisions of the Moi University Act empower the University to award degrees, diplomas and certificates. ACEII-PTRE students are subject to the Moi University's Postgraduate Rules and Regulations (Revised 2015). Additionally, for processing of the ACE coursework marks and thesis research defense, the Centre's Standard Operating Procedures will be adhered to. The Center will be guided by the PTRE Financial management and Procurement Management manuals. The center will conduct all activities in a transparent manner, put in place an independent complaint handling mechanism and publish reports on finance and audited accounts in project website.

4.2 Governance structures

(Briefly describe ACE governance structures both within the host university and among the partner institutions, at faculty/Center level and university/institution level)

The Moi University ACEII-PTRE as a Center entail three thematic areas for both Research and Academic activities, this being Phytochemicals, Textile engineering and Renewable Energy. The Center will work with the School of Biological & Physical Sciences (SBPS) and School of Engineering (SOE). The Center is headed by a Center Leader who is the academic, financial and administrative head of the Center, who ensures that all operations follow regulations and he reports to the Vice Chancellor.

A Steering Committee shall be established which will consist of Center Leader; Deputy Center Leader; Quality Assurance, Monitoring & Evaluation Officer; Coordinators for Phytochemicals, Textiles, Renewable Energy Research; Coordinator MSc/PhD Program; Short courses & Internships Coordinator and a Conferences/Seminars/Workshops Coordinator and elected representatives from partners both at the regional and national level. The partners at the regional level will include National University of Science and Technology, Regional Universities Forum for Capacity Building in

Agriculture (RUFORUM) and Toyota Tsusho East Africa. The national key partners will include Kenya Industrial Research & Development Institute (KIRDI), RIVATEX East Africa Limited (REAL) and Kerio Valley Development Authority (KVDA).

The Steering Committee is responsible for the guidance and advisory roles to the center and it shall meet quarterly where the key partners will follow through video link. Regional partners, national partners and the host institution will sit in one annual partners meeting. These meetings will provide a broader consultative platform for the management of the ACE. In addition, E-platforms establishment through improved ICT will enable video conferencing and enhance consultative meetings and communication with various partners of the Center. The Center Leader is assisted by a Deputy Center Leader who coordinates the Teaching and Research Programmes of the Center and a Quality Assurance / Management & Evaluation Officer who checks all operations of the Center are in line with action plans to deliver excellence. The three Research thematic areas shall be under relevant coordinators for Phytochemicals, Textiles and Renewable Energy who will spear head research activities. Additionally there will be an MSc/PhD Coordinator who shall be in charge with academic activities execution. Short courses and Internships for both students and staff shall also be organized and executed by a respective coordinator. This is similar for workshops, conferences and seminars. For transparency and accountability, the PTRE Center web-page to be created will be used for advertisement of activities, events and decisions made by the center.

The organogram shown in Figure 1 embedded into the university structure shall be adopted for the Center management and government.

4.3 Incentive structures

The incentive structures for Moi University faculty members working at the Center for excellence as well as the key partners both regional and international will be as follows:

- Moi University faculty members working at the Center will be considered to have extra load and will be compensated by the university according to the university guideline.
- There will be opportunities for staff exchanges programs as well as internship. Highly qualified staff from key partner institutions will be able to visit the Center and assist in supervision and also in research while the faculty members will be able to visit partner institutions to acquire new skills and methodologies in conducting research and teaching.
- Opportunities for joint research and publications will be available in addition to forums such as seminars and conferences for exchange of ideas.

- In terms of research, the staff will benefit from state-of-the-art laboratories that shall have been upgraded through the project funds.
- Private business is incentivized to work with the center to host students that will execute work and new research for immediate gains and as a pipeline for qualified experts into the labor force after completion of the degree programs.
- Private sector will also benefit from latest technologies that are in demand and help integrate this into their industrial practice
- Through our partners, human resource in private sector will get inducted and upgraded in the latest technologies
- International, regional and national partner will have the opportunities to visit the Center, use the laboratories and even attend and participate in the conferences, seminars and workshops at ACE full or shared cost. They have incentive to work with the center for access to its teaching for their trainees, its equipment and new services as part of the core facility.

TABLE 4: INCENTIVES FOR THE CATEGORIES OF INSTITUTIONS/PERSON

CATEGORY	INSTITUTION / PERSONS	ROLES	INCENTIVES
INTERNAL	ACE Center leader Deputy center leader	Management & Coordination of administrative duties of academics and research activities of the center.	University compensation of duties at the ACE as extra work load. ACE externally generated revenue could be used in compensation. Participation in conferences, staff exchange, training and upgrade courses.
	ACE thematic leaders and coordinators	Coordination of specific project activities assigned.	Opportunities for staff exchanges programs, internship, conferences and capacity building on specialized skills. University compensation of duties at the ACE as extra work load. ACE externally generated revenue could be used in compensation.
	ACE Lecturers and Supervisors	Delivery of the curriculum for all the ACE programs, Research and students supervision during thesis.	Opportunities for staff exchanges programs as well as internship and capacity building on specialized skills.
	HODs in SOE and SBPS	Heads of Departments hosting ACE curriculum	Participation in conferences, staff exchange, training and upgrade courses.
	Deans SOE and SBPS	Deans of schools hosting ACE activities.	Participation in conferences, staff exchange, training and upgrade courses.
	ACE Procurement & Finance assistants	Implementation of acquisition of all ACE requirements and Financial & Procurements managements.	University compensation of duties at the ACE as extra work load. Capacity building trainings and upgrading courses
	ACE Center Administrator	Oversee the day to day operations of the Center.	University compensation of duties at the ACE as extra work load.

			Capacity building trainings and upgrading courses
	ACE Secretary	Undertake ACE secretarial activities	University compensation of duties at the ACE as extra work load. Capacity building trainings and upgrading courses
	ACE Social and Environmental safeguard	Oversee that social and environmental safeguards are adhered	Capacity building trainings and upgrading courses
	ACE support staff	Undertake support duties in the ACE	University compensation of duties at the ACE as extra work load. Capacity building trainings
EXTERNAL	Industry partners	Provision of internships and commercialization of innovation.	Research and Development for product improvement. Capacity building trainings/workshops.
	Partner universities	Students and staff exchange programs for joint supervision.	Joint publications for staff and access to state of the equipment at the Centre of excellence.
	Community	Needs assessment initiatives for relevance of the Centre of Excellence activities.	New products and services for life improvement and solutions to identified problems. Avenues for promotion of inherent technologies. Outreach services.

4.4 Roles and responsibilities

The day to day management of the center will be done by the local members of the Project Steering Committee with key regional and international partners offering advisory services. As mentioned in Section 4.2, the Project Steering Committee consist of: Center Leader, Deputy Center Leader, KeyPartners, Quality assurance and Intellectual property Officer, Phytochemical Research Coordinator, Textile Research Coordinator, Renewable Energy Research Coordinator, MSc/PhD Program Coordinator, Short Courses and Internship Coordinator, Conference and Workshops Coordinator, elected regional and national partners. In the office of the Center Leader, there will be the secretariat consisting of the Center Manager, Center Secretary and Center Driver. The roles of the above mentioned Center personnel are as follows:

Table 5: Roles and Responsibilities

Name	Discipline	Project title/ Role	Responsibility
Prof. Ambrose	Analytical	Center Leader	<ul style="list-style-type: none"> Strategic direction of the Center.

Kiprop	Chemistry		<ul style="list-style-type: none"> • Development of activities that strengthen education and research. • Networking with partner institutions. • Coordinating procurement and maintenance of financial documents. • Oversee the implementation of Environmental and Social Management Plan. • Oversee implementation of project activities in partner institutions. • Chair steering committee.
Dr. Rose Ramkat	Applied Science	Deputy Center Leader	<ul style="list-style-type: none"> • Deputize Center Leader. • Day-to-day implementation of project activities. • Assist project leader in networking with other partner institutions. • Renovation and refurbishing Center offices. • Vice-Chair of the Steering Committee. • Following and collecting data on indicators.
Prof. Simeon Mining	Applied Science	Coordinator: Quality assurance, monitoring, evaluation and Intellectually Property	<ul style="list-style-type: none"> • Coordinator monitoring and evaluation of project activities. • Prepare forms and guidelines and ensure continuous record keeping and analysis • Initiate copy right registration. • Oversee the accreditation of short courses. • Acts as a link with international key partners.
Dr. Jackson Cherutoi	Analytical Chemistry	Coordinator: Phytochemicals	<ul style="list-style-type: none"> • Provide leadership in phytochemical research activities • Initiate purchase of equipment needed for phytochemical research.
Dr. David Njuguna	Textile/Industrial engineering	Coordinator: Textile	<ul style="list-style-type: none"> • Provide leadership in textile and industrial engineering research activities. • Initiate purchase of equipment needed for textile research.
Dr. Korir Kiptiemoi	Renewable Energy	Coordinator: Renewable energy	<ul style="list-style-type: none"> • Provide leadership in renewable energy research activities. • Initiate purchase of equipment needed for renewable energy research.
Dr. Fredrick Nyamwala	Mathematics	Coordinator: MSc/PhD programmes	<ul style="list-style-type: none"> • Coordinate recruitment of ACEII-PTRE sponsored students. • Organize accommodation for international students. • Coordinate the teaching, and supervision of the students.
Dr. Jacqueline	Applied	Coordinator: Short	<ul style="list-style-type: none"> • Coordinate development of short courses.

Makatiani	Science	courses/ Internships	<ul style="list-style-type: none"> • Initiate organization of summer schools. • Coordinate outreach activities.
Dr. Charles Nzila	Renewable Energy	Coordinator: Conferences/ Seminars/Workshops	<ul style="list-style-type: none"> • Organize conferences, workshops and seminars.
Dr Milton M´Arimi	Environmental and Social safeguards	Project Social and Environmental safeguards	<ul style="list-style-type: none"> • Ensure social and environmental safeguards are adhered to in PTRE
Mr. SilvesterOkelloOchieno	Procurement assistant	Procurement of goods, works and services for PTRE	<ul style="list-style-type: none"> • Run the procurement of goods, works and services for the center. • Maintain procurement records of PTRE • Prepare timely procurement reports for PTRE. • Perform any other duties assigned by the Center Leader and Deputy Center Leader.
Mr. KirwaChirchir	Accounting assistant	Accounting	<ul style="list-style-type: none"> • Maintain financial records of PTRE. • Prepare timely financial reports for PTRE. • Perform any other duties assigned by the Center Leader and Deputy Center Leader.
Ms. Naomi NkathaNkonge	Center Administrator	Project Management	<ul style="list-style-type: none"> • Oversee the day to day operations of the Center. • Implement the work plan of the Center. • Prepare timely reports of the Center. • Perform any other duties assigned by the Center Leader and Deputy Center Leader.
Ms. Janye Njenga	Center Secretary	Project Secretary	<ul style="list-style-type: none"> • Perform secretarial activities of PTRE • Prepare timely minutes and organization of activities • Perform any other duties assigned by the Center Leader and Deputy Center Leader.
Ms. Esther Maritim	Center Support Staff	Project Support	<ul style="list-style-type: none"> • Undertake support duties at PTRE

Note: The roles of the Center’s secretariat personnel will be determined by the Center Leader.

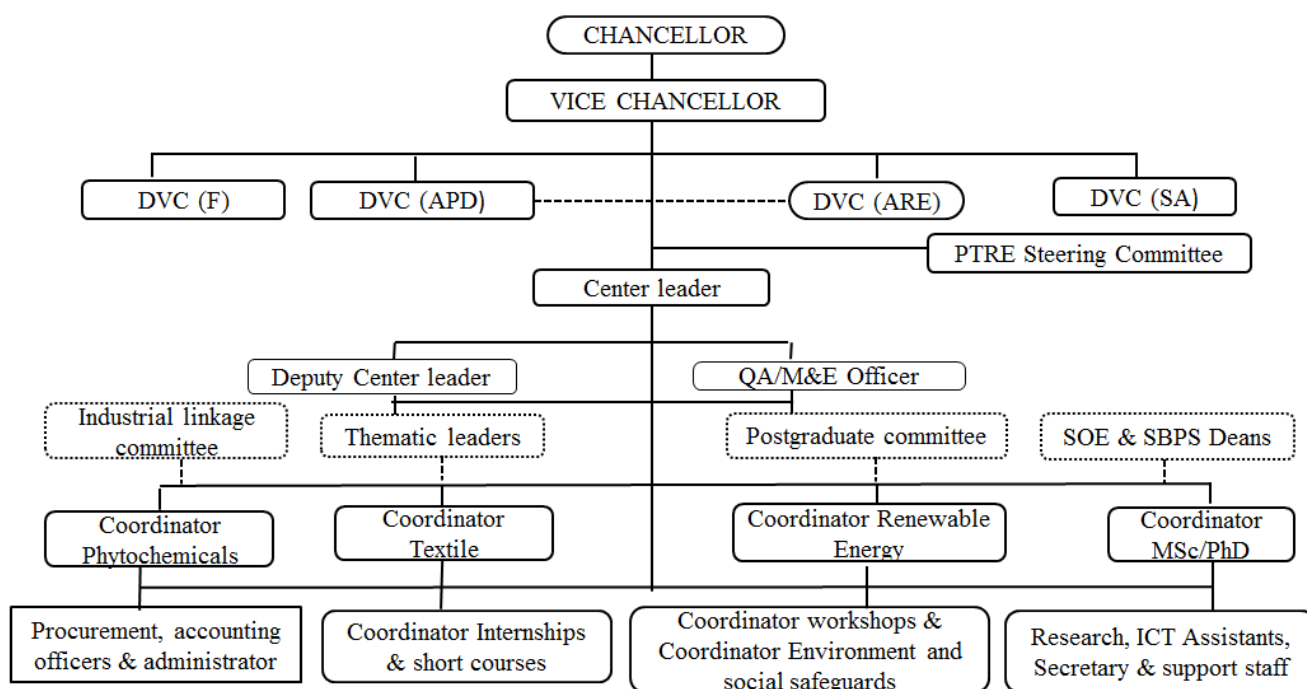


Figure 1: Organogram representing the ACE-PTRE structure

Solid lines indicates direct involvement with the ACE-PTRE operations while dotted line lines implies no direct involvement with the ACE-PTRE operations

TABLE 6: TEACHING FACULTY

Name	Area of Specialty
Eng. Prof. P. M. Wambua	Composite Materials Engineering
Prof. J. T. Githaiga	Materials Engineering
Prof. D.R Tuigong	Textile Engineering
Prof. J.I. Mwasiagi	Textile Engineering
Dr. E. Oyondi	Textile Engineering
Dr. D. Madara	Environmental Science
Dr. C. Nzila	Applied Science
Dr. D. Njuguna	Material Characterization
Dr. A. Makokha	Material Engineering
Prof. Z. Siagi	Renewable Energy
Prof. Peter Torongey	Renewable Energy
Dr. L Leting	Electrical Engineering
Prof. S. Namango	Chemical Engineering
Prof. A. M. Muumbo	Materials Engineering Simulation
Eng. Prof. S. SimiyuSitati	Electrical Engineering
Prof. A. K. Kiprop	Analytical chemistry
Prof. S. Lutta	Analytical chemistry
Dr. W. L. Munyendo	Pharmaceutical chemistry
Dr. J. Cherutoi	Inorganic chemistry
Dr. Y. Mitei	Analytical chemistry
Prof. S. K Rotich	Renewable Energy and Electronics
Prof. J. Mutiso	Statistics
Prof. J. Koskei	Statistics
Dr. F. O. Nyamwala	Spectral theory of D. Equations & mathematical modeling
Dr. K. K. Korir	Semiconductor devices
Prof. L. Ayiro	Research methodologies
Prof. H.M. Tsingalia	Environmental science
Dr. DorcasLusweti	Applied science
Dr. J. Makatiani	Applied science
Dr. R. Ramkat	Applied science

Prof. P. Gatongi	Public health
Prof. Simeon Mining	Applied science
Prof. Edwin Ataro	Electrical and Communication Engineering

4.5 Environmental safeguards

The ACE II-PTRE project focuses on training, mentorship and research. In this regard, it is a low risk project involving research activities such as the use of phytochemicals in textile, renewable energy harnessing and e-platform. It also includes refurbishment of an office building and an upgrade of laboratories. All these activities have minimal environmental and social impacts. The project’s environmental and social management plan consists of mitigation measures for specific issues under;

- Management of ecosystems and sustainable use of natural resources.
- Environmental quality and health.
- Training, research, monitoring and evaluation.
- E-waste.

Institutional measures are also included for implementation to mitigate any adverse environmental and social impacts.

The EMP checklist has the following;

- i. A descriptive part that characterizes project activities, describe technical project content and briefly captures the public concerns and mitigation measures.
- ii. Includes a screening checklist of potential environmental and social impacts where activities and potential environmental issues can be checked in a simple Yes or No format.
- iii. Has a monitoring plan to enable the ACE II management team, partners, stakeholders and World Bank specialists to monitor implementation of the environmental management and protection measures, in order to detect deviations and shortcomings promptly.

Table 7: Center of excellence in PTRE EMP checklist

S/N	Centre Name	ESMP required?	Issues	Mitigation Measures
1.	ACE II-PTRE	Yes[√]	<p>1. Laboratory and centre office rehabilitation;</p> <ul style="list-style-type: none"> • Increase in dust and noise from rehabilitation works. • Site specific rehabilitation waste. 	<p>Air quality</p> <ol style="list-style-type: none"> During rehabilitation of buildings dust screen enclosures to be installed to confine dust in a controlled area and spray with water mist to reduce airborne debris. The surrounding environment of the laboratories to be kept free of construction debris. Disposal of construction debris to adhere to the Moi University Environmental Policy and national regulations. <p>Noise</p> <ol style="list-style-type: none"> Construction noise to be limited to agreed times as per the national construction authority permit. <p>Waste management</p> <ol style="list-style-type: none"> Waste sources, collection and disposal pathways will be identified for all the major waste categories expected from the rehabilitation works. Segregation of waste according to the major waste categories will be followed. Wherever feasible the contractor will minimize waste generation besides reusing and recycling the suitable and worthwhile materials. Waste from building rehabilitation works will be collected and disposed of properly by approved waste collectors. Records of waste disposal shall be maintained for accountability and proof of prudent waste management. Lead based paints or any paint with toxic ingredients will not be used.
		Yes[√]	<p>2. Handling the collection of plants and other natural products;</p> <ul style="list-style-type: none"> • Disposal of off-cuts in form of dried plant parts. • Disposal of residues emanating from phytochemicals extraction methods by soaking ground plant material. • Disposal of sample collection bags and containers. • Disposal of sharps. 	<p>Solid waste plant material</p> <ol style="list-style-type: none"> All plant material not used as sample shall be adequately deposited in the composite pits for organic decomposition into manure. Residues in form of ground plant material shall be spread to dry inside fume chambers and flashed with water before depositing it to composite pits for biodegradation. The surrounding environment of the laboratories shall be kept free of plant material debris to minimize. <p>Non-biodegradable sampling bags and containers</p> <ol style="list-style-type: none"> Sample collection bags and containers that are not biodegradable shall be incinerated to ash before appropriately depositing in designated dump sites managed and operated by the local authorities for consequent disposal. <p>Sharps</p> <ol style="list-style-type: none"> Disposed in special puncture resistant containers and boxes.

		Yes[√]	3. Conservation of biodiversity; <ul style="list-style-type: none"> • Harvesting plant parts for phytochemicals. • Harnessing natural products. 	Biodiversity conservation <ol style="list-style-type: none"> a) Use of non-destructive plant sample collection methods. b) Replenishing the species by planting and nurturing the seedlings. Natural products conservation <ol style="list-style-type: none"> a) Ensuring the natural product source is not depleted to provide for natural regeneration.
		Yes[√]	4. Handling and management of extraction solvents/ hazardous chemicals; <ul style="list-style-type: none"> • Mineral and organic solvents. • Oxidizing/reducing agents. • Acid and alkalis. 	Mineral and organic solvents <ol style="list-style-type: none"> a) In compliance with national regulations there shall be temporary storage of the solution in separate leak-proof containers to prevent spillage and leaching. b) Each of the containers will be appropriately labelled with details of date, composition and properties of hazardous or toxic substances together with information of how to handle. c) The wastes will then be transported by licensed carriers and disposed in a licensed facility. d) Use of personal protective equipment at all times while handling/or manipulating hazardous chemicals under fume chamber. Aqueous residues <ol style="list-style-type: none"> a) The aqueous residues shall be drained with copious amounts of water straining any solid particles.
		Yes[√]	5. Handling and management of textile wastes; <ul style="list-style-type: none"> • Disposal of solid waste: fibres, yarns and fabric. • Disposal of textile effluents from dyeing and finishing processes. 	Textile wastes management; <ol style="list-style-type: none"> a) All textile solid waste shall be collected in temporary storage in the laboratories and disposed of in a licensed landfill. b) All textile effluents shall be stored temporary in the laboratories in leak-proof containers and later disposed of in a textile effluent treatment plant which is in place and operational.
		Yes[√]	6. Handling and management of air emission from textile process; <ul style="list-style-type: none"> • Oil and acid mist • Solvent vapours. • Dust and lint. 	Air emission management; <ol style="list-style-type: none"> a) Mist eliminators/fume chambers shall be installed in the laboratories to mitigate their emission into working area/or atmosphere. Conducting chimney which is in place and operation at site shall allow the residual mist to be dispersed at appropriate height. b) Condensation of vapours by cooling in heater exchangers shall allow recovery of solvent vapours generated by textile processes. The remnant vapours shall be captured through the use of activated carbon. c) Fabric filters shall be used for capturing dust and lint emanating from textile processes. d) Production of dust and lint shall be controlled through site humidification by either spraying water or by using air humidifier available at the site.

		Yes[√]	7. Handling and management of cultured microbes; <ul style="list-style-type: none"> • Disposal of used materials and apparatus. • Disposal of microbial organisms. 	Materials and apparatus <ul style="list-style-type: none"> a) Autoclaving and other sterilization methods use before disposal in licensed sites for incineration. Microbial organisms <ul style="list-style-type: none"> b) These shall be sterilized using UV rays followed by destruction with autoclave steam before disposal following recommended procedures. c) Adhere to Standard Operating Procedures according to National Council for Clinical Laboratories Standard (NCCLS) for maintaining pure cultures, and also ensuring recommended numbers per culture.
		Yes[√]	8. Handling and management of solid, liquid and gaseous waste from renewable energy research activities; <ul style="list-style-type: none"> • Sample storage. • Disposal of solid, liquid and gaseous waste. 	Research materials and samples <ul style="list-style-type: none"> a) In compliance with national regulations, all research materials shall be stored in separate leak-proof containers to prevent spillage and leaching. b) Each of the containers will be appropriately labelled with details including date, composition and properties of hazardous or toxic substances together with information of how to handle them. c) Appropriate storage facilities for research materials and samples are in place. Waste management <ul style="list-style-type: none"> a) Waste sources, collection and disposal pathways will be identified for all the major waste categories expected from the research activities b) Segregation of waste according to the major waste categories will be followed. c) Wherever feasible, the researchers will minimize waste generation besides reusing and recycling the suitable and worthwhile materials (except any toxic materials). d) Waste materials will be collected and disposed of properly by approved waste collectors. e) Records of waste disposal shall be maintained for accountability and proof of prudent waste management.

		Yes[<input checked="" type="checkbox"/>]	<p>9. Handling and management of e-waste;</p> <ul style="list-style-type: none"> • Disposal of office electronics that include: computers, printers, televisions, monitors, projectors, telephones, fax machines. • Disposal of monitoring and control instruments, thin films and photo-voltaic modules. • Disposal of batteries and UPS systems. 	<p>Electronic waste Management</p> <ol style="list-style-type: none"> a) Create awareness and conduct sensitization on responsible e-waste management. b) Separate e-waste from other wastes to facilitate collection, treatment and recycling. c) Implementing signed MOU by Moi University. d) Sell or donate e-waste to licensed recyclers. e) Take back equipment to the manufacturer, importer or assembler, if they allow it. f) Dump e-waste at the licensed dumping site specified for e-waste.
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5. PERFORMANCE MONITORING

Table 8: Overview of Disbursement Linked Indicators (DLI) and Disbursement Linked Results (DLR) for 5 years
(Please insert the Result Framework shared with IUCEA, and please indicate planned disbursement as a function of the expected results)

Disbursement Linked Indicator	Action to be completed	Definition	Amount of Financing Allocated (expressed in USD equivalent)	Disbursement Calculation Formula (expressed in USD equivalent)
DLI #1: Institutional readiness	DLR#1.1: To meet Conditions for Effectiveness Creation of ACE designated account Approved Financial Management and procurement procedures and Environmental and social management plans capacity	Disbursed when all conditions for effectiveness outlined in the legal agreements signed between the ACE hosting government and the World Bank	600,000	DLR#1.1: 600,000
	DLR#1.2: Development of detailed implementation plans Signing of funding and performance contract between the University and the Government	Disbursed when detailed implementation plan of ACE is approved by the ministry in charge of higher education as part of the Performance Agreement.	500,000	DLR#1.2: 500,000
DLI #2: Excellence in education and research capacity and development impact	DLR# 2.1: Timely annual implementation of the plans At least 70% of the annual activities achieved	Disbursement based on the achievement of at least 50% and scalable up to 85% of implementation targets in any given year. Achievement rates beyond 85% in any given year triggers a 100% disbursement of that year.	500,000	500,000
	DLR #2.2: Newly enrolled students in the ACE of which at least 20% must be regional (African) students. Total New Short term students (300)	Short-Term Courses: Disbursement occurs when any course leading to qualification (certificate/diploma /degree) counts as a short-term course: 400 per male national student 500 per female national student 800 per male regional student	Short-Term Courses 210 National; 181 male, 64 female 90 Regional; 62 male, 28 female Male national = 181 x 400 = 72,400USD Female national = 64 x 500 = 32,000USD Male regional = 62 x 800 = 49,600 USD Female regional = 28 x 1000 = 28,000 USD	DLR#2.2: 1,200,000

	<p>Total New Masters students (60) 40 National; 27 males, 13 females 20 Regional; 13 male, 7 female</p> <p>Total New PhD (30)</p> <p>Academic accomplishment 30 (10F) MSc students Completed 10(3F) MSc regional students completed</p>	<p>1,000 per female regional student.</p> <p>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 5,500 per female regional student.</p> <p>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.</p> <p>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, totaling for not more than 300,000.</p>	<p>Total Short Courses = 181, 000USD</p> <p>Master's: Male national = $27 \times 2500 = 67,500$ USD Female national = $13 \times 3000 = 39,000$ USD Male regional = $13 \times 4500 = 58,500$ USD Female regional = $7 \times 5500 = 38,500$ USD</p> <p>PhD: 21 National; 14 males, 7 females 9 Regional; 6 male, 3female Male national = $14 \times 12,000 = 168,000$ USD Female national = $7 \times 15,000 = 105,000$ USD Male regional = $6 \times 25,000 = 150,000$ USD Female regional = $3 \times 30,000 = 90,000$ USD</p> <p>Total student enrollment MSc & PhD = $203,500 + 513,000 = 716,500$ USD</p> <p>Academic accomplishment</p> <p>MSc completed 101,750 USD</p> <p>PhD completed 15(5 F) PhD students research proposals approved 4 (1 F) PhD regional students research proposals approved (256,000 USD)</p> <p>(Total Academic accomplishment = 357,750 USD) Maximum allowed = 300,000 USD) Total DLR#2.2 = 1,255,250 USD (Maximum allowed = 1,200,000 USD)</p>	
	<p>DLR#2.3: Accreditation of quality of education programs</p> <p>Four (4) programs nationally accredited</p>	<p>Disbursement occurs when a Master or PhD program is accredited by international or regional or national body (satisfactory to IUCEA and the World Bank):</p>	<p>Regionally accredited programs $4 \times 75,000 = 300,000$ USD</p>	<p>600,000</p>

	<p>One (1) programme : International accreditation by an international accrediting institution</p>	<p>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, totaling for not more than 300,000.</p>	<p>1 x 300,000 = 300, 000 USD</p> <p>Total DLR#2.3 = 600, 000 USD</p>	
	<p>DLR#2.4: Collaboration and partnerships for applied research and training. Signing of the partnership MOUs for at least a period of two years</p> <p>3MOUs with public institutions/civil society established</p> <p>4 MOUs with private sector/ industry established</p>	<p>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 approved. All MoU work programs must be satisfactory to IUCEA/World Bank.</p>	<p>MOU with public Institutions 3 x 30, 000 = 90, 000 USD</p> <p>MOUs with private sector/ industry 4x 40,000 = 160, 000 USD</p> <p>Total DLR#2.4 = 250,000 USD</p> <p>Total DLR#2.4:= 200,000 USD (Max allowed)</p>	<p>DLR#2.4: 200,000</p>
	<p>DLR#2.5: Peer-reviewed journal papers or peer-reviewed conference papers prepared collaboratively with regionally or international partners</p> <p>5 papers published articles in peer reviewed journals with regional author</p> <p>2 papers accepted by a peer reviewed journal with international</p>	<p>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</p>	<p>Papers published articles in peer reviewed journals with regional author 5 x 30, 000 = 150, 000 USD</p> <p>Papers accepted by a peer reviewed journal with international author 2x 25, 000 = 50, 000 USD</p> <p>Papers accepted peer-reviewed conference paper with regional author 5 x 20, 000 = 100, 000 USD</p>	<p>DLR#2.5: 300,000</p>

	author 5 papers accepted peer-reviewed conference paper with regional author	conference paper with regional author (s) 20,000 per accepted peer-reviewed conference paper with international author (s)	Total DLR#2.5 = 300, 000	
	DLR#2.6: Faculty and PhD student exchanges to promote regional research and teaching National: 15 exchange within country Regional: 35 regional exchanges	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” within the region 8,000 per “period” for international.	Nationalexchange 15 x 5000 = 150, 000 USD Regional exchanges 35 x 10,000 = 350,000 USD Total DLR # 2.6 = 500, 000 USD	DLR#2.6: 500,000
	DLR#2.7: External revenue generation Revenue generated from students fees and consultancies, joint proposals, fund drives both nationally and internationally	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.	900,000 generated from students fees and consultancies, joint proposals, fund drives both nationally (400,000 USD) and regional/international (250,000 USD) National generation = 400, 000 USD x 1; + International = 250,000 USD x 2 = 900,000 USD Total DLR# 2.7 = 900,000 USD	DLR#2.7: 900,000
	DLR#2.8: Institution participating in benchmarking exercise Benchmarking undertaken at Partnership of Applied Sciences, Engineering and Technology	The DLR will be disbursed if the ACE hosting university participates in the Partnership of Applied Sciences, Engineering and Technology (PASET) benchmarking exercise.	Benchmarking at Partnership of Applied Sciences, Engineering and Technology (PASET) = 100,000 USD Total DLR#2.8 = 100, 000 USD	DLR#2.8: 100,000

DLI#3: Timely, transparent and institutionally reviewed Financial Management	DLR#3.1: Timely Withdrawal Application supported by financial reporting on the ACE account for the period Timely submission of financial report	15,000 per year	15, 000 x 5 = 75,000	DLR#3.1: 75,000
	DLR#3.2: Functioning Audit Committee under the university council Constituted audit committee	15,000 per year	15, 000 x 5 = 75,000	DLR#3.2: 75000
	DLR#3.3: Functioning internal audit unit for the university Internal audit unit in place	15,000 per year	15, 000 x 5 = 75,000	DLR#3.3: 75000
	DLR#3.4: Transparency of financial management (audit reports, interim financial reports, budgets and annual work plan are all web accessible) Availing PTRE audit report interim financial reports, budgets and annual work plan and placing in ACE center web site	15,000 per year	15, 000 x 5 = 75,000	DLR#3.4: 75000
DLI#4: Timely and audited Procurement	DLR# 4.1 Timely procurement audit report Timely submission of procurement audit report	30,000 per year	30, 000 x 5 = 150,000	DLR#4.1: 150000
	DLR#4.2: Timely and satisfactory procurement progress report Timely submission of procurement progress report	30,000 per year	30, 000 x 5 = 150,000	DLR#4.2: 150000

Table 9: Example of a monitoring spreadsheet in Excel (Table 9. Is not comprehensive enough to be used as a monitoring instrument, it only provides a crude overview. It is therefore required that the entire set of activities for project year 1 is presented in a table along the lines indicated below)

DLIs	Results	Activities	Detailed activity sheets (actions)	Time	Money	When
	(order or sequence)	(order or sequence)	(order or sequence)	(Months, days)	Currency (USD)	Dates
DLI #1: Institutional readiness	Funded project sponsored by world bank	Negotiate and sign funding contract	DAS 1.1	5 months	0	Jan 2016 to May 2016
	Existence of: One (1) procurement manual, one (1) financial management manual, and an evaluation committee.	Put in place operational manual for ACE administration, procurement, financial management and independent evaluation committee	DAS 1.2	12 months	5000	July 2016 to Sept. 2017
	One (1) workshop on world bank procedures. One (1) day official launching of the project.	ACE implementation team meeting on world bank procedures and project inception workshop	DAS 1.3	5 months	21,200	Aug. 2017 to Nov. 2017
	Sensitized community (Kesses community, county government, farmers, local administration, environmentalists among others)	Community and stake holders sensitization	DAS 1.4	12 months	3,000	Sept 2016 to Nov 2017
	One (1) Refurbished center building Existence of training facilities	Refurbish center Buildings and training facilities	DAS 1.5	9 months	160,000	Aug 2017 to April 2018
	seminars on project self-evaluation One (1) industrial linkage committee meeting	Conduct seminars for self-evaluation of project progress and 1 industrial linkage committee meetings	DAS 1.6	9 months	28200	Oct 2017 to June 2018
	Two (2) Technical reports on education and research drafted which shows data analysis	Collecting and analyzing data for technical reporting and monitoring and evaluation on education and research	DAS 1.7	12 months	300	July 2017 to June 2018
	Four (4) Regular meetings by ACE committee held	Plan and hold ACE meetings both physically and video conferencing	DAS 1.8	12months	2000	July 2017 to June 2018
	Run office throughout the year	Operation cost	DAS 1.10	12 months	44000	July 2017 to June 2018
DLI #2: Excellence in education						
	Recruitment process established	Advertisement of center activities	DAS 2.2	3 months	5000	July 2017 to Sept. 2017

and research capacity and development impact	Twelve (12) new MSc students enrolled (partial and fully funded)	Enroll students and run MSc	DAS 2.3	10 months	75845	Sept. 2017 to June 2018
	Seven (7) new PhD students enrolled (partial and fully funded)	Enroll students and run PhD	DAS 2.4	10 months	93900	Sept. 2017 to April 2018
	ICT upgrading done – E-platforms established	ICT Upgrading: E-platforms establishment	DAS 2.5	9 months	50000	July 2017 to March 2018
	One (1) retooling workshop held. Motivated ACE lecturers, who are adequately for postgraduate supervision	Re-tooling faculty in areas relevant to the ACE curriculum delivery and supervision	DAS 2.6	3 months	14000	Sept. 2017 to Nov. 2017
	One (1) stakeholders needs assessment for short courses done, at least two (2) short courses developed and accredited	Assessing stakeholders needs for short courses, developing short courses curriculum and accreditation	DAS 2.7	9 months	6500	Sept. 2017 to March 2018
	One (1) management workshop on institutional capacity development to enhance operational capacity of ACE staff held Capacity built management staff and enhanced performance	One (1) day workshop on institutional capacity development in governance, data systems, leadership and monitoring and evaluation	DAS 2.11	4 months	13430	Sept. 2017 to Dec. 2017
	Smooth integration of regional students to Moi University community New skills for life improvement and solutions to identified problems	Activity 3.1: Orientation of new students on campus life, and language lessons will be offered 3.1.1 Orientation /cultural seminars 3.1.2 Language training	DAS 3.1	4 Months	1000	Aug. 2017 to Nov. 2017
	Programs offered meet both national and international standards Capacity built ACE lecturers with acquired skills on curriculum review and delivery	Activity 3.7: 3.7.1: Bench-marking seminars /workshop for the relevant thematic areas 3.7.2: Peer review accreditation of programs offered at the center	DAS 3.7	9 months	12100	July. 2017 to March 2018
	Modern research equipment for research and teaching procured Enhance joint publications between the internal ACE staff and partner staff Enhanced learning and research skills of students/staff	Upgrade of Textile Laboratory and Phytochemical research laboratory ,renewable energy	DAS 4.1	12 months	328656	July 2017 to June 2018
		Purchase of laboratory consumables and software	DAS 4.4	9 months	22000	July 2017 to March 2018
	At least 4 (MSc&PhD) review meetings/seminars	Departmental and school postgraduate review meetings/seminars	DAS 4.5	9 months	0	Sept. 2017 to May 2018
	At least 4 partners/faculty supported to	Faculty/PhD student Mentorship on	DAS 4.8	9 months	33500	Sept. 2017

	mentorship logistics/mobility	specialized skills (internships, mobility)				to June 2018
	At least 2 PTRE partner's Faculty/students supported on collaborative research	Faculty/Students collaborative research	DAS 4.11	9 months	7000	Oct. 2017 to June 2018
	Support partners participation in external seminars, workshops and conferences	Participation in external seminars, workshops and conferences and short courses	DAS 4.12	9 months	13200	Oct. 2017 to June 2018
	At least 1 center vehicle purchase for ACE center field activities and meetings	Procurement of 4X4 extended landcruiser	DAS 4.16	3 months	74,000	July 2017 to Sept. 2017
	Purchase vehicle maintained in good condition and local/regional travel	Maintain: insurance and service research vehicles. Local/regional travel for Centre members.	DAS 4.14	9 months	10,000	Oct. 2017 to June. 2018
DLR#2.7: External revenue generation	At least one (1) grant proposal developed for targeted calls Achieved sustainability of PTRE Center Compensated ACE Centre, Leader and Deputy Centre Leader and coordinators	Support a team from the PTRE to develop a grant proposal related to Centre activities and compete for targeted calls	DAS 4.9	12 months	5000	July 2017 to July 2018
DLI#3: Timely, transparent and institutionally reviewed Financial Management	At least two (2) Financial reports done Timely disbursement of funds Capacity built Finance staff Assistant accountant compensated for the extra work from extra generated revenue	Carry out financial audit and compile a report on project funds	DAS 6	12 months	500	July 2017 to June 2018
DLI#4: Timely and audited Procurement	At least one (1) procurement report done Timely disbursement of funds Capacity built procurement staff Procurement assistant officer compensated for the extra work from extra generated revenue	Carry out procurement process audit and compile a report on project activities	DAS 7	12 months	500	July 2017 to June 2018

6. DETAILED BUDGET

Table 10: Budget, Project year 2 – 5 with split between host and consortium partners

Expenditure Category	Estimated Costs in (US\$)					
	YR 2	YR3	YR 4	YR5	Total	% of total
A: Budget by Activity Plan						
Set-up institutional framework for commencement of the ACE	257500	81400	73900	33900	421000	7.0
Strengthen education capacity excellence - quality and productivity	131125	742630	581830	243300	1890660	31.5
Education Capacity & Development Impact	27100	124500	121000	25500	291000	4.85
Strengthen Research Capacity excellence – quality and productivity	514656	891710	733450	193100	2320360	38.7
Strengthen education and research capacity (through increased financial sustainability) and demonstration of value to students and partners	0	6110	105370	134801	111480	1.9
Observation of best practices in ACE financial operation	500	2450	2450	1300	3100	0.05
Observation of best practices in ACE procurement operation	500	8560	1358	594	2994	0.05
Sub total	931381	1857360	1619358	632495	5040594	84.0
B: Budget by partners						
Kenya Industrial Research & Development Institute (KIRDI)	8600	19125	19125	12750	59600	0.99
Rift Valley Textile East Africa Limited (REAL)	19990	23550	23550	10700	77790	1.30
Kerio Valley Development Authority (KVDA)	700	15750	15750	10500	42700	0.71
Toyota Tsusho	700	22500	12500	5000	40700	0.51
Kenya Bureau of standards	6700	15750	15750	10500	48700	0.88
University of Eldoret	6900	14835	14835	0	36570	0.66
National University Science Technology	20840	42000	27000	18000	107840	1.71
Nelson Mandela	1000	15750	15750	10500	43000	0.72
Busitema University	28650	43920	25000	20000	117570	2.13
University of Gezira	17040	34500	30000	20000	101540	1.82
University of Malawi	26650	16050	16050	10700	69450	1.14
University of Zambia	13825	7500	7500	7860	36685	0.46
South Range Nyanza	12825	7500	7500	5000	32825	0.55
RUFORUM	3030	34500	34500	13000	85030	1.42
Sub total	167450	313230	264810	154510	900000	15.00
Total A+B	1098831	2170590	1884168	787005	5940594	
1 % contingency	10988.31	21705.9	18841.68	7870.05	59405.94	1
GRAND TOTAL	1109819	2192296	1903010	794875.1	6000000	

7. DETAILED ACTIVITY SHEETS

Table: DETAILED ACTIVITY SHEET (1.2)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE

Time frame: July 2016 to September 2017

Activity: 1.2. Put in place operational manual for ACE administration: procurement, financial management, monitoring, Independent evaluation committee.

RESULT	A working operation manual				
ACTIVITY	1.2 Put in place operational manual for ACE administration: procurement, financial management, monitoring and evaluation				
OUTPUT	<ul style="list-style-type: none"> Draft procurement management plan Draft financial management plan. Draft a manual for monitoring and evaluation 				
OUTPUT INDICATOR			SOURCE OF VERIFICATION		
<ul style="list-style-type: none"> Submission of procurement plan Submission of Financial plan Submission of monitoring and evaluation plan 			<ul style="list-style-type: none"> Procurement management plan Financial management plan Monitoring and Evaluation plan 		
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Procurement plan ready by September 2016 Financial plan ready by September 2016 Standard operating procedures ready by September 2017 				
PROCUREMENT					
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader, ACE-team, Finance officer and Procurement officer				
DURATION: 3 months	Commencement: July 2016		Completion: September 2017		
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University	PARTICIPANTS: ACE-PTRE, Moi University				
ASSUMPTIONS	<ul style="list-style-type: none"> Finance department of Moi University will assist in preparation of financial plan Procurement department of Moi University will assist in drafting procurement plan 				
FINANCIAL IMPLICATIONS	Budget from ACE-PTRE Partner (Moi University)				
Budget Line 1.0 Analysis 1.2 Put in place operational manual for ACE administration: procurement, financial management, monitoring and evaluation	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.2.1 Drafting financial and procurement plans	2,000	0	0	0	2,000
1.2.2 Drafting all standard operating procedures	3,000	0	0	0	0
TOTALS	5,000	-	0	-	5,000

Table: DETAILED ACTIVITY SHEET (1.3)

Action plan: 1.0. Institution qualified, Regional specialization approved and Administrative capacity and proper planning
Time frame: Aug2017 to November 2017
Activity: 1.3. ACE Implementation team meeting on World Bank procedures (Project inception workshop and official launching ceremony)

RESULT	ACE team that is conversant with World Bank procedures and implementation plans and a officially launched project				
ACTIVITY	1.3 ACE Implementation team meeting on world bank procedures				
OUTPUT	<ul style="list-style-type: none"> Hold workshops on World Bank procedures (project inception workshop) Official launching of the project 				
OUTPUT INDICATOR			SOURCE OF VERIFICATION		
<ul style="list-style-type: none"> Workshops on World Bank procedures. Officially launched project 			<ul style="list-style-type: none"> Minutes of the meetings Attendance of official launching ceremony 		
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Project inception workshop to be held by August2017. Project to be launched officially by November 2017. 				
PROCUREMENT					
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader, ACE-team				
DURATION: 5 months	Commencement: Aug 2017		Completion: November 2017		
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University		PARTICIPANTS: ACE team			
ASSUMPTIONS	<ul style="list-style-type: none"> World Bank procedures would be available at the time of workshop for discussion 				
FINANCIAL IMPLICATIONS	Budget from Key partner (Moi University) and ACE funds				
Budget Line 1.0 Analysis 1.3Project inception workshop and official launch	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.3.1 Project inception workshop and official launch	15000	0	0	0	15,000
1.3.2 Partners support to inception workshop	6200	0	0	0	6,200
TOTALS	21,200	0	0	-	21,200

Table: DETAILED ACTIVITY SHEET (1.4)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE
Time frame: July 2016 to Sept2017
Activity: 1.4 Community and stakeholders sensitization

RESULT	A sensitized community and stakeholders on project activities					
ACTIVITY	1.4 Community and Stakeholders sensitization					
OUTPUT	<ul style="list-style-type: none"> Conduct community awareness campaign Organize stakeholders workshop 					
OUTPUT INDICATOR			SOURCE OF VERIFICATION			
<ul style="list-style-type: none"> Consultative meetings Stakeholders workshops 			<ul style="list-style-type: none"> Signed Attendance sheets A summary of resolutions 			
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Community consultative meetings to be conducted by Sept, 2017. Stakeholders workshop to be held by Nov, 2017 					
PROCUREMENT	Kenya Television Service (KTS) Advertisement					
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader, National key partners, procurement officer					
DURATION: 3 months	Commencement: July 2016		Completion: Nov2017			
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University		PARTICIPANTS: ACE team				
ASSUMPTIONS	<ul style="list-style-type: none"> National key partners will be involved in community and stake holders' awareness. KTS advertisement will reach a large population of the community 					
FINANCIAL IMPLICATIONS	Budget from ACE-PTRE & Key partner (Moi University)					
Budget Line 1.0 Analysis 1.4 Community and Stakeholders sensitization		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.4.1	Consultative meetings	0	0	0	0	0
1.4.2	Stakeholders workshop	0	3000	0	0	3000
TOTALS		0	0	0	0	3000

Table: DETAILED ACTIVITY SHEET (1.5)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE
Time frame: Aug 2017 to Oct 2017
Activity: 1.5 Refurbish Centre Building and Training Facilities

RESULT	Refurbished Centre Offices
ACTIVITY	1.5 Renovation and refurbishing of center offices and training facilities, purchase of office equipment and furniture
OUTPUT	<ul style="list-style-type: none"> Conduct general repair and partition of Centre offices Purchase center's training facilities

	<ul style="list-style-type: none"> Purchase of office equipment and furniture 					
OUTPUT INDICATOR <ul style="list-style-type: none"> Centre offices with a face lift Modern furniture, office equipment, training facilities 			SOURCE OF VERIFICATION <ul style="list-style-type: none"> Contract for renovations Receipts for equipment and furniture acquisition 			
IMPLEMENTATION MILESTONES		<ul style="list-style-type: none"> renovation to be done by June 2018. Purchasing of modern office equipment and furniture to be done by June 2018. 				
PROCUREMENT		Office equipment, furniture will be procured by the procurement division				
RESPONSIBILITY FOR IMPLEMENTATION		Centre leader, ACE Team, procurement officer				
DURATION: 12 months		Commencement: Aug 2017		Completion: June 2018		
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University			PARTICIPANTS: ACE team			
ASSUMPTIONS		<ul style="list-style-type: none"> Only minimal construction work will be done to renovate the Centre offices. 				
FINANCIAL IMPLICATIONS		Budget from ACE-PTRE (Moi University)				
Budget Line 1.0 Analysis 1.5 Renovation and refurbishing center offices		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.5.1	Refurbishing centre buildings	-	110,000			110,000
1.5.2	Purchasing centre's facilities and High performance Desktop PC (Apple iMac)	-	50,000	-		50,000
TOTALS		0	160000	0	0	160,000

Table: DETAILED ACTIVITY SHEET (1.6)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE
Time frame: Oct2016 to June2018
Activity: 1.6 Conduct seminars for self-evaluation of project progress

RESULT	Seminars held
ACTIVITY	1.6 Hold two seminars to evaluate project progress and 1 industrial linkage committee meeting
OUTPUT	<ul style="list-style-type: none"> Hold seminars on self-evaluation industrial linkage committee meeting

OUTPUT INDICATOR <ul style="list-style-type: none"> Two seminars for self-evaluation. Project progress report 1 industrial linkage committee meeting 		SOURCE OF VERIFICATION <ul style="list-style-type: none"> Seminars attendance Progress report 				
IMPLEMENTATION MILESTONES		<ul style="list-style-type: none"> One (2) seminars on self-evaluation by June 2018 1 meeting on industrial linkage by June 2018 				
PROCUREMENT						
RESPONSIBILITY FOR IMPLEMENTATION		Centre leader, Deputy Centre Leader, Project coordinator Industrial linkage committee				
DURATION: 9 months		Commencement: October 2016			Completion: June 2018	
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University		PARTICIPANTS: ACE-PTRE, Moi University Stakeholders				
ASSUMPTIONS		<ul style="list-style-type: none"> 1 self-evaluation seminars held 1 industrial linkage committee meeting held 				
FINANCIAL IMPLICATIONS		Budget from ACE-PTRE (Moi University)				
Budget Line 1.0 Analysis 1.6 Conduct seminars for self-evaluation of project progress (2 per year), needs assessment for short courses, graduate tracer studies and 5 industrial linkage committee meetings in 5 years (1 per year)		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.6.1	Self-evaluation seminars	0	0	0	10000	10000
1.6.2	Industrial linkage committee meeting	0	0	2000	0	2,000
1.6.3	Needs assessment for short courses	0	8,200	0	0	8,200
1.6.4	Graduate tracer studies	0	8,000	0	0	8,000
	TOTAL	0	16200	2000	10000	28200

Table: DETAILED ACTIVITY SHEET (1.7)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE
Time frame: June2017 to July 2018
Activity: 1.7 Collecting and analyzing data for technical reporting and M&E on education and research

RESULT	Progress report on Centre activities					
ACTIVITY	1.7 Collecting and analyzing data for technical reporting and M&E on education and research					
OUTPUT	<ul style="list-style-type: none"> • Conduct evaluation of courses for programmes offered in the Centre • Analyze data obtained from the course evaluation • Draft progress report on Centre activities: teaching and research 					
OUTPUT INDICATOR			SOURCE OF VERIFICATION			
<ul style="list-style-type: none"> • Filled in course evaluation form • Analyzed data • Written progress report 			<ul style="list-style-type: none"> • Course evaluation form • Analyzed data • Progress report 			
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> • Course evaluation will be conducted on a semester basis • Analysis of data will be on semester basis • Progress report will be done biannually 					
PROCUREMENT	Printing papers, toner					
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader, Deputy Centre Leader, Project coordinators, Centre Faculty, Centre secretariat					
DURATION: 6 months	Commencement: July 2017		Completion: June 2018			
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University		PARTICIPANTS: ACE-PTRE, Moi University				
ASSUMPTIONS	<ul style="list-style-type: none"> • The directorate of quality assurance and management will conduct course evaluation 					
FINANCIAL IMPLICATIONS	Budget from ACE-PTRE (Moi University)					
Budget Line 1.0 Analysis 1.7 Collecting and analyzing data for technical reporting and M&E on education and research		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.7.1	Course Evaluation and data analysis	0	0	0	100	100
1.7.2	Progress report writing	50	50	50	50	200
TOTALS		50	50	50	150	300

Table: DETAILED ACTIVITY SHEET (1.8)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE
Time frame: July2017 to June 2018
Activity: 1.8 Plan and hold ACE implementation team meetings (both physical and video conferencing)

RESULT	Resolutions of the meetings
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ACTIVITY	1.8 Plan and hold ACE implementation team meetings					
OUTPUT	<ul style="list-style-type: none"> Organize ACE meeting with team members 					
OUTPUT INDICATOR			SOURCE OF VERIFICATION			
<ul style="list-style-type: none"> Meeting attendace Meeting resolutions 			<ul style="list-style-type: none"> Meeting minutes Attendance sheets 			
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Every quarterly there should be ACE implementation meeting 					
PROCUREMENT	n/a					
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader					
DURATION: 12 months	Commencement: July2017		Completion: June2018			
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University			PARTICIPANTS: ACE-PTRE, Moi University			
ASSUMPTIONS	<ul style="list-style-type: none"> The key partners will be informed prior of the intended video conference meeting 					
FINANCIAL IMPLICATIONS	Budget from ACE-PTRE (Moi University), Key partners					
Budget Line 1.0 Analysis 1.8 Plan and hold ACE implementation team meetings		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.8.1	ACE meetings	500	500	500	500	2000
TOTALS		500	500	500	500	2000

Table: DETAILED ACTIVITY SHEET (1.9)

Action plan: 1.0. Set up Institutional Framework for the Commencement of ACE

Time frame: July 2017 to June 2018

Activity: 1.10ACE Operation cost

RESULT	ACE activities all running smoothly and timely				
ACTIVITY	1.8 Meet operation expenditure in the ACE				
OUTPUT	<ul style="list-style-type: none"> ACE-PTRE and partners annual meetings 				
OUTPUT INDICATOR			SOURCE OF VERIFICATION		
<ul style="list-style-type: none"> Accounting documents for legible expenses 			<ul style="list-style-type: none"> Operation Activities undertaken 		
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> ACE activities done by Dec 2017. 				
PROCUREMENT	Meeting venues, meals, refreshment, accommodation, air tickets, transport, stationary				

RESPONSIBILITY FOR IMPLEMENTATION	ACE-PTRE team, Centre Leader, Partners, procurement officer				
DURATION: 1 month	Commencement: July2017		Completion: june2018		
PRIMARY CONSTITUENTS: ACE-PTRE, Moi University	PARTICIPANTS: ACE-PTRE, Moi University				
ASSUMPTIONS	<ul style="list-style-type: none"> Only ACE legible activity expenditure shall be incurred 				
FINANCIAL IMPLICATIONS	Budget from ACE-PTRE (Moi University)				
Budget Line 1.0 Analysis 1.10 Partners annual meeting	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
1.10.1 Cost for running ACE and other legible exercises not planned	5000	10000	10000	19000	44000
TOTALS	5000	10000	10000	19000	44000

Table: DETAILED ACTIVITY SHEET (2.1)

Table: DETAILED ACTIVITY SHEET (2.2)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity

Timeframe: June 2017 to Sept 2017

Activity: 2.2. Advertisement of Centre activities

RESULT	<ul style="list-style-type: none"> High quality applications generated Increased number, quality and diversity of students admitted into PhD and MSc programs 	
ACTIVITY	2.2 Advertisement of Centre activities	
OUTPUT	<ul style="list-style-type: none"> A call for application shall be posted on the website of Moi University, partner institutions and Africa Caribbean and Pacific group of states, in at least one local newspaper, and all regional country missions in Kenya for onward transmission to their respective countries Online applications from prospective candidates. On- and offline promotional material of the center and postgraduate study 	
OUTPUT INDICATOR	SOURCE OF VERIFICATION	
<ul style="list-style-type: none"> Successful recruitment of 7 PhD and 12 MSc students in year one (Textile engineering 1 PhD, 2 MSc; Industrial engineering 1 PhD, 2 MSc; Analytical chemistry 2 PhD, 2 MSc; Renewable energy 3 PhD, 6 MSc) Student composition 30% regional & 25% female Developed on- and offline promotional material on the range of taught postgraduate programs and research opportunities Award of tenders for supply of equipment 	<ul style="list-style-type: none"> Admission documents form Director, Postgraduate studies Minutes of applicants short listed by PhD/MSc coordinator and Departmental (Engineering, Chemistry & Biochemistry, Mathematics & Physics) Graduate Studies Committee (DGSC) Minutes for evaluation of tenders Tender documents 	
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> A call for application to be posted by September 2017 Review of applications and short-listing by September 2017 Acceptance letters sent to selected applicants (7 PhD, 12 MSc applicants) by September 2017 	
PROCUREMENT	<ul style="list-style-type: none"> Advertisement for PhD and MSc programs in local newspapers, electronic campaigns material, websites, printing brochures Advertisement of tenders for procurement of equipments 	
RESPONSIBILITY FOR IMPLEMENTATION	Center leader, GSREC, School Graduate Studies Committee (SGSC), Administrative officer, Thematic Program coordinators	
DURATION: 12 months	Commencement: July 2017	Completion: December 2018
PRIMARY CONSTITUENTS: All applicants and enquirers into PhD and MSc programs Academic departments of Moi University and partner institutions	PARTICIPANTS: ACE Administration Director, Post Graduate Studies Departmental Graduate Studies Committee PhD/MSc and Thematic coordinators Dean of Schools (Engineering and Biological & Physical Sciences) GSREC DVC (A,R&E) ICT officer	
ASSUMPTIONS	<ul style="list-style-type: none"> The admissions committee shall admit students following an open, merit-based 	

	<ul style="list-style-type: none"> At least 30% regional students and 25% female students shall be recruited. Quality of applications shall be high enough for acceptance into PhD and MSc programs Recruitment campaigns shall be targeted and timely 				
FINANCIAL IMPLICATIONS	Budget from ACE and partners; Advertisement and recruitment costs				
Budget Line 2.0 Analysis 2.2 Advertisement of Center activities	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
2.2.1 Advertisement of ACE postgraduate programs in print media (i.e., local newspapers, brochures, etc.)	0	5000	0	0	5000
2.2.2 Partner advertisement of ACE activities	0	0	0	0	5000
TOTALS	0	5000	0	0	5000

Table: DETAILED ACTIVITY SHEET (2.3)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity

Timeframe: September 2017 to June 2018

Activity: 2.3 MSc Fellowships

RESULT	<ul style="list-style-type: none"> Curriculum delivery to first year MSc students Students assisted in meeting their research requirements 	
ACTIVITY	2.3 Enroll students and run MSc	
OUTPUT	<ul style="list-style-type: none"> 12 MSc (8 national, 4 regional) students enrolled (Partially and fully funded) Courses taught to first year MSc students Each student successfully completes the required course work and examinations in year one Each student develops a research proposal and successfully defends it. Course evaluation by each student 	
OUTPUT INDICATOR	<ul style="list-style-type: none"> Successful enrollment of 12 MSc (Textile Engineering 2, Industrial Engineering 2, Renewable Energy 6, & Analytical Chemistry 2) students in year one Composition of students to include 30% regional and 33% female students Students complete required course work and examinations in year one Submitted research proposal by each student Course evaluation reports 	SOURCE OF VERIFICATION Director, Postgraduate Studies Departments of Textile Engineering, Industrial Engineering, Physics and Mathematics, and Biological & Physical Sciences Minutes of GSREC meetings and students' progress reports Course evaluation reports from Quality Assurance office
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Student registration for first year first semester (12 MSc) to be done by April 2018 Students course work to be done by April 2018 Course evaluation by students to be done by April 2018 Approval of students' research topics by April 2018 Student registration for first year second semester by April 2018 Submission on students' research proposals by June 2018 First cohort of 12 MSc students complete year one of study by June 2018 	
PROCUREMENT		

RESPONSIBILITY FOR IMPLEMENTATION	Center leader, Deputy Center leader					
DURATION: 8months	Commencement: September2017	Completion: June 2018				
PRIMARY CONSTITUENTS: School of Engineering School of Biological and Physical Sciences All registered MSc students ACE-Faculty Visiting scientists	PARTICIPANTS: PhD/MSc coordinator Departmental Graduate Students Committee – School of Engineering and School of Biological and Physical Sciences Deans – School of Engineering and School of Biological and Physical Sciences ACE Faculty Quality Assurance Office					
ASSUMPTIONS	<ul style="list-style-type: none"> Associate Faculty and visiting scientists will support the teaching of all academic courses 					
FINANCIAL IMPLICATIONS	Budget from ACE; full scholarships awarded to MSc students based on merit					
Budget Line 2.0 Analysis 2.3 Enroll students and run MSc	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total	
2.3.1	scholarships for national MSc students	0	10000	6,600	0	16000
2.3.2	scholarships for regional MSc students	0	5000	325	0	5325
2.3.2	National and regional Partners support for MSc fellowships	0	33,920	10000	10000	53920
TOTALS		0	48920	16925	10000	75845

Table: DETAILED ACTIVITY SHEET (2.4)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity
Timeframe: September 2017 to June2018
Activity: 2.4 PhD fellowships

RESULT	<ul style="list-style-type: none"> Curriculum delivery to first year PhD students Students assisted in meeting their research requirements
ACTIVITY	2.4 Enroll students and run PhD
OUTPUT	<ul style="list-style-type: none"> 7 PhD (5 national, 2 regional) students enrolled Courses taught to first year PhD students Each student successfully completes the required course work and examinations in year one Each student develops a research proposal and successfully defends it. Course evaluation by each student
OUTPUT INDICATOR	SOURCE OF VERIFICATION
<ul style="list-style-type: none"> Successful enrollment of 7 PhD (Textile Engineering1, Industrial Engineering 1, Renewable Energy 3, & Analytical Chemistry 2) students in year one Courses taught to first year PhD students Each student successfully completes the required course work and 	Director, Postgraduate Studies Departments of Textile Engineering, Industrial Engineering, Physics and Mathematics, and Biological & Physical Sciences

examinations in year one <ul style="list-style-type: none"> • Each student develops a research proposal and successfully defends it. • Course evaluation by each student • Composition of students to include 30% regional and 33% female students • Students complete required course work and examinations in year one • Submitted research proposal by each student • Course evaluation reports 		Minutes of GSREC meetings and students' progress reports Course evaluation reports from Quality Assurance office			
IMPLEMENTATION MILESTONES	Student registration for first year first semester (7 PhD) to be done by June2018 Students begin course work to be done by June2018 Course evaluation by students to be done by June 2018 Approval of students' research topics to be done by June2018 Student registration for first year second semester to be done by April2018 Submission on students' research proposals to be done by June2018 First cohort of 7 PhD students complete year one of study to be done by June2018				
PROCUREMENT					
RESPONSIBILITY FOR IMPLEMENTATION	Center leader, Deputy Centerleader				
DURATION: 10 months	Commencement:September 2017	Completion:June2018			
PRIMARY CONSTITUENTS: School of Engineering School of Biological and Physical Sciences All registered PhD students ACE-Faculty Visiting scientists	PARTICIPANTS: PhD/MSc coordinator Departmental Graduate Students Committee – School of Engineering and School of Biological and Physical Sciences Deans – School of Engineering and School of Biological and Physical Sciences ACE Faculty Quality Assurance Office				
ASSUMPTIONS	<ul style="list-style-type: none"> • Associate Faculty and visiting scientists will support the teaching of all academic courses 				
FINANCIAL IMPLICATIONS	Budget from ACE; full scholarships awarded to PhD students based on merit				
Budget Line 2.0 Analysis 2.4 Enroll students and run PhD	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
2.4.1 scholarships for national PhD students	0	14000	10,600	10000	34600
2.4.2 scholarships for regional PhD students	0	4000	1000	380	5380
2.4.3 Support of national and regional partners towards PhD fellowships	0	35000	10000	8920	53920
TOTALS	0	53000	21600	19300	93900

Table: DETAILED ACTIVITY SHEET (2.5)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity
Timeframe: July 2017 to March 2018
Activity: 2.5. ICT Upgrading: E-platforms establishment

RESULT	Upgraded ICT unit, installed classroom projectors and Smart/interactive White boards in teaching rooms, and development of one teleconferencing room				
ACTIVITY	2.5 ICT Upgrading, Installation, E-platforms establishment				
OUTPUT	<ul style="list-style-type: none"> Teaching rooms installed with projectors and Smart board interactive White boards. Development of one teleconferencing room to facilitate communication Increased internet connectivity, speed and access with additional 20 Mbps band width supply established in the center Development of interactive Website for research dissemination 				
OUTPUT INDICATOR	<ul style="list-style-type: none"> Completely equipped and functional teaching rooms with projectors and Smart board interactive White boards, and a teleconferencing room Functional e-platform Reliable internet access established Reliable interactive Website for research dissemination 			SOURCE OF VERIFICATION Center leader Procurement officer ICT Officer	
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> ICT Upgrade complete, and functional teaching rooms and teleconferencing room to be done by March 2018 Developed e-platforms to be done by March 2018 Reliable internet access with increased band width to be done by March 2018 Reliable interactive Website for research dissemination developed to be done by March 2018 				
PROCUREMENT	Internet access equipment, antivirus for computers				
RESPONSIBILITY FOR IMPLEMENTATION	Center leader and ACE team				
DURATION: 9 months	Commencement: July 2017		Completion: March 2018		
PRIMARY CONSTITUENTS: Postgraduate students Prospective students and Faculty Partner institutions Center Faculty	PARTICIPANTS: ICT office				
ASSUMPTIONS	<ul style="list-style-type: none"> Procurement procedures and processes at Moi University shall be strictly adhered to 				
FINANCIAL IMPLICATIONS	Budget from ACE				
Budget Line 2.0 Analysis 2.5 ICT Upgrading: E-platforms establishment	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
2.5.1	Installation of projectors in teaching rooms, Smart/Interactive white boards, & development of	0	0	0	21,000
			21,000		21,000

	a teleconferencing room					
2.5.2	Development/Adoption of E-learning Platform	0	0	1,000	0	1,000
2.5.3	Provision of Internet connectivity (Accessories for linking to the university backbone)	0	0	2,000	0	2,000
2.5.4	Setting up a Local Area Network (LAN) in offices (2) and one ICT/Computer lab, &Wi-Fi connectivity within the Center	0	0	3,400	0	3,400
2.5.5	Increase Internet Bandwidth (20 Mbps)	0	0	7,000	0	7,000
2.5.6	Purchase projectors, laptops, & photocopier with scanning and network printing facility	0	0	14,600	0	14,600
2.5.7	Interactive Website for research dissemination	0	0	1,000	0	1,000
2.5.8	Training users on use of e-learning platform	0	0	-	0	-
TOTALS		0	-	50,000	-	50,000

Table: DETAILED ACTIVITY SHEET (2.6)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity

Timeframe: September 2017 to December 2017

Activity: 2.6 Re-tool Faculty in areas relevant to the ACE curriculum delivery and supervision

RESULT	<ul style="list-style-type: none"> Enhanced research and teaching capacity of academic faculty and student supervisors at ACE
ACTIVITY	2.6 Re-tool faculty in areas relevant to the ACE curriculum delivery and supervision
OUTPUT	<ul style="list-style-type: none"> 25 ACE Associate Faculty equipped with knowledge and skills on relevant teaching and learning materials, pedagogies, and processes
OUTPUT INDICATOR	<ul style="list-style-type: none"> Number of Faculty participating in training Number of relevant teaching and learning material
SOURCE OF VERIFICATION	<ul style="list-style-type: none"> Faculty training manuals/technical guides and reports from ACE secretariat Training module package
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> 25 ACE Associate Faculty members retooled by November 2017
PROCUREMENT	Stationery, venue, catering services, training material

RESPONSIBILITY FOR IMPLEMENTATION	Center leader and Deputy Center leader				
DURATION: 3months	Commencement:September 2017		Completion:November 2017		
PRIMARY CONSTITUENTS: ACE Faculty Postgraduate students Partner institutions	PARTICIPANTS: ACE Associate Faculty				
ASSUMPTIONS	• Moi University will be supportive at all stages of the process				
FINANCIAL IMPLICATIONS	Budget from ACE-PTRE and Partners				
Budget Line 2.0 Analysis 2.6 Re-tool Faculty in areas relevant to the ACE curriculum delivery and supervision	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
2.6.1 Cost of material for training	-	500	-	-	500
2.6.2 Logistics, venue, catering services	-	3,000	-	-	3,000
2.6.3 Transport, accommodation & per diem of training facilitators for 5 days	-	7000	-	-	7000
2.6.4 support partners to retool workshop	-	3,500	-	-	3,500
TOTALS	0	14000	-	-	14000

Table: DETAILED ACTIVITY SHEET (2.7)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity
Timeframe: October 2017 to March 2018
Activity: 2.7 Develop short courses curriculum

RESULT	<ul style="list-style-type: none"> Assessed stakeholders needs for short courses New curriculum for two short professional courses in the areas of ACE training, knowledge and innovation 				
ACTIVITY	2.7 Develop short courses curriculum				
OUTPUT	<ul style="list-style-type: none"> Curriculum for at least 2 short courses developed Enhancement of skills for participants 				
OUTPUT INDICATOR	<ul style="list-style-type: none"> Number of short course developed 		SOURCE OF VERIFICATION		
			<ul style="list-style-type: none"> Records from ACE secretariat 		
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Different modules of 2 short professional courses offered by June 2018 				
PROCUREMENT	Travel, accommodation, stationary, Catering services, venue, etc.				
RESPONSIBILITY FOR IMPLEMENTATION	Center leader and ACE team				
DURATION: 6months	Commencement:October 2017		Completion:June 2018		
PRIMARY CONSTITUENTS: ACE Faculty Regional and national partners Industries Private companies Postgraduate students Graduate students	PARTICIPANTS: Faculty, School of Biological and Physical Sciences Faculty, School of Engineering Internship/Short course coordinator				
ASSUMPTIONS	<ul style="list-style-type: none"> Short courses to be offered are available The short courses will attract applicants from national and regional level Successful engagement by short course instructors 				
FINANCIAL IMPLICATIONS	Budget from ACE: Travel for short course curriculum development stakeholders to meet for development of short course curriculum, catering services, stationery, etc.				
Budget Line 2.0 Analysis 2.7 Assess stakeholders needs for short courses, develop short courses curriculum and accredit	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
2.7.1	<ul style="list-style-type: none"> Material for development of short courses 	0	0	0	0
2.7.2	<ul style="list-style-type: none"> Travel, accommodation, per diem, catering services on development of at least two (2) short courses 	0	3000	3500	0
					6500

TOTALS	0	3000	3500	0	6500
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Table: DETAILED ACTIVITY SHEET (2.9)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity

Timeframe: October 2017 to June 2018

Activity: 2.9 Offer short courses and seminars

RESULT	<ul style="list-style-type: none"> At least two (2) short courses offered 					
ACTIVITY	2.9 Offer short courses and seminars					
OUTPUT	<ul style="list-style-type: none"> At least 2 short courses offered 					
OUTPUT INDICATOR	<ul style="list-style-type: none"> Number of short course offered Number of participants trained through short courses 			SOURCE OF VERIFICATION		
				<ul style="list-style-type: none"> Records from ACE secretariat 		
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Different modules for short professional courses developed by march 2018 					
PROCUREMENT	Travel, accommodation, stationary, Catering services, venue, etc.					
RESPONSIBILITY FOR IMPLEMENTATION	Center leader and ACE team					
DURATION: 6 months	Commencement:October 2017		Completion:March 2018			
PRIMARY CONSTITUENTS: ACE Faculty Regional and national partners Industries Private companies Postgraduate students	PARTICIPANTS: Faculty, School of Biological and Physical Sciences Faculty, School of Engineering Internship/Short course coordinator					
ASSUMPTIONS	<ul style="list-style-type: none"> needs assessment workshop and baseline survey will be undertaken within the university and nation The curriculum will be supported by all participants / partners Successful engagement by short course instructors 					
FINANCIAL IMPLICATIONS	Budget from ACE: Travel, accommodation, and per diem for facilitators/consultants and other participants in institutional capacity training, catering services, stationery, etc.					
Budget Line 2.0 Analysis Offer short courses and seminars	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total	
2.9.1	<ul style="list-style-type: none"> Material for use during short courses offering (stationary) 	0	500	500	500	0
2.9.2	<ul style="list-style-type: none"> Travel, accommodation, per diem, catering services on offering of at least two (2) short courses 	0	4500	4500	4500	15000
TOTALS		0	5000	5000	5000	15000

Table: DETAILED ACTIVITY SHEET (2.11)

Action Plan: 2.0. Strengthen education capacity excellence – quality and productivity

Timeframe: September 2017 to December 2017

Activity: 2.11 Institutional capacity development in governance, data system, leadership and monitoring and evaluation (leadership and Management workshop)

RESULT	<ul style="list-style-type: none"> Enhanced operational capacity ACE staff 					
ACTIVITY	2.11 Institutional capacity development in governance, data system, leadership and monitoring and evaluation (leadership and Management workshop)					
OUTPUT	<ul style="list-style-type: none"> ACE staff equipped with knowledge and skills on relevant guidelines on governance, data systems, leadership and monitoring and evaluation 					
OUTPUT INDICATOR <ul style="list-style-type: none"> Number of ACE team participating in capacity building training Number of relevant capacity building training material 			SOURCE OF VERIFICATION <ul style="list-style-type: none"> Capacity building training manuals/technical guides and reports from ACE secretariat 			
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> December, 2016: ACE team members trained on governance, data systems, leadership and monitoring and evaluation 					
PROCUREMENT	Travel, accommodation, stationary, Catering services, venue, etc.					
RESPONSIBILITY FOR IMPLEMENTATION	Center leader and ACE team					
DURATION: 4months	Commencement: September2017		Completion: December2017			
PRIMARY CONSTITUENTS: ACE Faculty ACE administrative staff Regional and national partners			PARTICIPANTS: Moi university ACEII-PTRE team Procurement officer Faculty members Project coordinators ACE administrative staff Partners			
ASSUMPTIONS	<ul style="list-style-type: none"> Moi University will be supportive at all stages of institutional capacity building 					
FINANCIAL IMPLICATIONS	Budget from ACE and partners: Travel, accommodation, and per diem for facilitators/consultants and other participants in institutional capacity training, catering services, stationery, etc.					
Budget Line 2.0 Analysis 2.11	Ins titutional capacity development in governance, data systems, leadership and monitoring and evaluation	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
2.11.1	Catering services, logistics, venues etc., for holding training	-	2,300	-	-	2,400
2.11.2	Travel, accommodation, per diem for five facilitators/ consultants holding one-week training	-	6,000	-	-	6000
2.11.3	support partners to		5,030	-	-	

	leadership and management workshop					5,030
2.11.4	Stationary		100			100
TOTALS		-	13,430	-	-	13430

Table: DETAILED ACTIVITY SHEET (3.1)

Action Plan: 3.0. Education capacity and development impact
Timeframe: August 2017 to December 2017
Activity: 3.1. Cultural seminars and language training

RESULT	Need for smooth integration of regional students to Moi university community						
ACTIVITY	Orientation of new students on campus life, also language lessons will be offered to students who are non-English speaking						
OUTPUT	Enhance regional students integration into Moi university community, thus ensuring they enjoy their stay in the campus						
OUTPUT INDICATOR	25 PhD students (8 regional and 17 National), 15 MSc students (5 regional and 10 National) will undergo orientation and language training					SOURCE OF VERIFICATION	
						<ul style="list-style-type: none"> • Copy of orientation schedule 	
IMPLEMENTATION MILESTONES	Orientation/Cultural seminars to be done by November 2017 Language training to be done by November 2017						
PROCUREMENT	n/a						
RESPONSIBILITY FOR IMPLEMENTATION	Center Leadership, International Office, Institute for Gender studies, Department of Linguistics and foreign languages.						
DURATION: 4months	Commencement: August 2017			Completion: November 2017			
PRIMARY CONSTITUENTS : ACE-PTRE, Moi University	PARTICIPANTS : ACE-PTRE, Moi University						
ASSUMPTIONS	Regional student quota will be achieved and recruited students report within stipulated time						
FINANCIAL IMPLICATIONS	ACE budget for the activity						
Budget Line Analysis	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total
3.1.1 Orientation /cultural seminars; meals, transport, per diem	-	1,000	0	0			1000
3.1.2 Language training	-	-	-	-	-		0
TOTALS	0	1000	0	0			1000

Table: DETAILED ACTIVITY SHEET (3.5)

Action plan: 3.0 Education Capacity & Development Impact

Time frame: September 2017 to June 2018

Activity: 3.5 Visiting professors/external expertise

RESULT	. PhD students and Faculty gain experience from experts						
ACTIVITY	3.5 Visiting professors/external expertise						
OUTPUT	Faculty/PhD students acquisition of specialised skills Exposure of faculty/PhD students to various learning/researching expertise						
OUTPUT INDICATOR Number of faculty/staff visiting.	SOURCE OF VERIFICATION						
	<ul style="list-style-type: none"> List of visiting staff Center leader 						
IMPLEMENTATION MILESTONES	Receiving Visiting professors/external expertise to be done by June 2018						
PROCUREMENT	n/a						
RESPONSIBILITY FOR IMPLEMENTATION	Center leader						
DURATION: 9 months	Commencement: September 2017			Completion: June 2018			
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> Partner faculty members Graduate students 	PARTICIPANTS: Moi University team Partners						
ASSUMPTIONS	<ul style="list-style-type: none"> Willingness and availability of faculty for visiting Availability of a partner capable of providing specialized skills 						
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE						
Budget Line Analysis 3.5 Visiting professors/external expertise	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total
3.5.1 Support of professors/external expertise to PTRE (Travelling cost and Perdiem)	0	5000	5000	0			10000
TOTALS	0	5000	5000	0			10000

Table: DETAILED ACTIVITY SHEET (3.6b)

Action Plan: 3.0 Education Capacity & Development Impact
Timeframe: October 2017 to June 2018
Activity: 3.6(b) Development of a new MSc program in phytochemistry

RESULT	<ul style="list-style-type: none"> Assessed stakeholders needs for short courses New curriculum for two short professional courses in the areas of ACE training, knowledge and innovation 				
ACTIVITY	3.6(b) Development of a new MSc program in phytochemistry				
OUTPUT	<ul style="list-style-type: none"> Curriculum for at least MSc course developed 				
OUTPUT INDICATOR	<ul style="list-style-type: none"> 1 new MSc program developed 	SOURCE OF VERIFICATION			
		<ul style="list-style-type: none"> Records from ACE secretariat 			
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Different course units for MSc program in phytochemistry developed by June 2018 				
PROCUREMENT	Travel, accommodation, stationary, Catering services, venue, etc.				
RESPONSIBILITY FOR IMPLEMENTATION	Center leader and ACE team				
DURATION: 6 months	Commencement: October 2017	Completion: March 2018			
PRIMARY CONSTITUENTS: ACE Faculty Stakeholders	PARTICIPANTS: Faculty, School of Biological and Physical Sciences Faculty, School of Engineering Internship/Short course coordinator				
ASSUMPTIONS	<ul style="list-style-type: none"> The curriculum development will be supported by Faculty 				
FINANCIAL IMPLICATIONS	Budget from ACE: Travel for curriculum development, stakeholders to meet for curriculum development, accreditation, t.c.				
Budget Line 3.0 3.6(b) Development of a new MSc program in phytochemistry	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
3.6.1 b Travel, accommodation, per diem, catering services on development of at least 1 curriculum	0	1000	1000	0	2000
3.6.2b Accreditation cost	0	0	0	2000	2000
TOTALS	0	1000	1000	2000	4000

Table: DETAILED ACTIVITY SHEET (3.7)

Action Plan: 3.0. Education capacity and development impact
Timeframe: July to March 2018
Activity: 3.7. Benchmarking with Partnerships of Applied Sciences, Engineering & Technology (PASET) and review for accreditation

RESULT	Programs offered will meet both national and international standards						
ACTIVITY	Programs bench-marking and accreditation						
OUTPUT	Strengthen education capacity by ensuring quality programme offered to students						
OUTPUT INDICATOR	Adoption of the best practices by ACE-PTRE as implemented and in-line with center’s core mandate. International accreditation of programs offered at the center					SOURCE OF VERIFICATION	
						<ul style="list-style-type: none"> • Copy of bench-marking seminar/workshop report • Copy of MOU between ACE-PTRE and the institution to be used in bench-marking • Copy of peer review accreditation report. 	
IMPLEMENTATION MILESTONES	Identification of institution to be used in bench-marking and the peer accreditation to be undertaken for each the relevant thematic areas by March 2017 Implementation of bench-marking and initiation peer review accreditation to be done by March 2017						
PROCUREMENT	n/a						
RESPONSIBILITY FOR IMPLEMENTATION	PTRE, Key Partners, Thematic departments, DVC ARE						
DURATION: 3months	Commencement: July2017			Completion:March 2018			
PRIMARY CONSTITUENTS:	<ul style="list-style-type: none"> • Graduate students • Faculty members • Prospective graduate students 			PARTICIPANTS: ACE-PTRE, Moi university, Key Partners and regional universities			
ASSUMPTIONS	Availability of relevant bench-marking/accreditation bodies for the various specialization						
FINANCIAL IMPLICATIONS	ACE budget for the activity						
Budget Line Analysis	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total
3.7.1	Bench-marking seminars /workshop for the relevant thematic areas	0	0	1000	0		1100
3.7.2	Peer review with partners for accreditation of programs offered at the center and for development of new programs	0	0	11000	0		11000
3.7.3	Stationary	0	0	100			
TOTALS		0	0	12100	0		12100

Table: DETAILED ACTIVITY SHEET (4.1)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: July 2017 to June 2018
Activity: 4.1. Upgrading of Textile laboratory, phytochemical and renewable energy research laboratories

RESULT	<ul style="list-style-type: none"> Acquisition of research equipment Renovation of the laboratories infrastructure 					
ACTIVITY	4.1. Upgrading of Textile and Phytochemical research laboratories					
OUTPUT	<ul style="list-style-type: none"> Procured research equipment Improved laboratories infrastructure 					
OUTPUT INDICATOR			SOURCE OF VERIFICATION			
<ul style="list-style-type: none"> Number of procured research equipment Improved laboratories infrastructure 			<ul style="list-style-type: none"> Purchase receipts Renovation receipts/report Center leader 			
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Partial procurement of research equipment to be conducted by December 2017. Partial renovation of the laboratories infrastructure to be conducted by December 2017 					
PROCUREMENT	<ul style="list-style-type: none"> Textile research equipment purchase through tendering process Phytochemical research equipment purchase through tendering process 					
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader					
DURATION: 12 months	Commencement: July 2017		Completion: December 2017			
PRIMARY CONSTITUENTS:			PARTICIPANTS:			
<ul style="list-style-type: none"> Graduate students Faculty members Prospective students RIVATEX East Africa Limited staff 			Moi university procurement team Moi University technical staff Moi university finance team National construction authority National Environmental Management Agency RIVATEX East Africa Limited			
ASSUMPTIONS	<ul style="list-style-type: none"> There will be no delay in the procurement of research equipment from abroad Laboratories renovation will be completed on time for machine installation and commissioning. 					
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE					
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
4.1. Upgrading of Textile laboratory, phytochemical and renewable energy research laboratories						
4.1.1	Dyeing machines	-	40,000	-		40,000
4.1.2	Textile HP-HT Kier boiler	-	25,000	-		25,000

4.1.3	IDRaman mini Handheld Raman Spectrometer	-	25,000	-		25,000
4.1.4	Desktop SEM (JEOL JCM-6000 Neoscope)	-	20,000	-		20,000
4.1.5	Digital high temperature furnace	-	1,500	-		1,500
4.1.6	Auto hot press machine (Hotonix STX20) –controlled pressure	-	1,005	-		1,005
4.1.7	Powdering/grinding machine	-	800	-		800
4.1.8	Oven- Quincy Lab 20GCE-LT Digital gravity convention oven	-	730	-		730
4.1.9	Absorbance tester –Lamotte	-	600	-		600
4.1.10	Digital thermometer – type k	-	500	-		500
4.1.11	Digital verniercaliper	-	500	-		500
4.1.12	Strain gauges	-	300	-		300
4.1.13	High pressure stainless steel boiler	-	400	-		400
4.1.14	Cutting machine –Octo Round Knife	-	750	-		750
4.1.15	Solar Module Quantum efficiency measurement system (with all accessories)	-	60,000	-		60,000
4.1.16	THERMO NICOLET NEXUS 870 FTIR ESP FT-IR Spectrometer	-	12,000	-		12,000
4.1.17	Shimadzu LC-2010 CHT HPLC	-	58,421	-		58,421
4.1.18	Heidolph™ Hei-Vap™ Rotary Evaporator	-	9,450	-		9,450
4.1.19	compound microscope with CAMERA	-	15,000	-		15,000
4.1.20	Flash point module	-	-	-		-
4.1.21	PECVD split tube furnace systems	-	15,000	-		15,000

4.1.22	2000 PV Modules	-	5,000	-		5,000
4.1.23	Electrical Balance-of-System Hardware	-	4,500	-		4,500
4.1.24	PV Array Combiner Boxes	-	1,500	-		1,500
4.1.25	Fuses and Breakers	-	200	-		200
4.1.26	Automatic biodiesel oil oxidation stability analyzer, oil laboratory testing equipment.	-	10,000	-		10,000
4.1.27	Support of partners to upgrade laboratories	-	10000	-		10000
TOTALS		-	328,656	328,656	-	328,656

Table: DETAILED ACTIVITY SHEET (4.2)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: July 2017 to March 2018
Activity: 4.2 Laboratory equipment installation,commissioning and training

RESULT	<ul style="list-style-type: none"> Laboratory equipment installed Laboratory equipment commissioned Technicians trained on use of new equipment's 	
ACTIVITY	4.4. Laboratory equipment installation,commissioning and training	
OUTPUT	<ul style="list-style-type: none"> Laboratory equipment in use 	
OUTPUT INDICATOR	<ul style="list-style-type: none"> Number of equipment installed Number of equipment commissioned Number of technicians trained 	SOURCE OF VERIFICATION <ul style="list-style-type: none"> Training note Center leader Equipment in laboratory
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Installation of laboratory equipment to be conducted by June 2018. Commissioning of laboratory equipment to be done by June 2018. Training of Technicians on use of new equipment's to be done by June 2018 	
PROCUREMENT	n/a	
RESPONSIBILITY FOR IMPLEMENTATION	Center leader, coordinators	
DURATION: 6 months	Commencement: Nov 2017	Completion: June 2018

PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> • Faculty members • Technicians 		PARTICIPANTS: <ul style="list-style-type: none"> Moi University technical staff Moi university ACE team 				
ASSUMPTIONS	There will be no delay in the procurement of laboratory equipment					
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE					
Budget Line Analysis 4.2 Laboratory equipment installation, commissioning and training		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
4.2.1	Installation of laboratory equipment	0	0	4000	0	4000
4.2.2	Commissioning of laboratory equipment	0	0	0	4000	4000
4.2.3	Training of Technicians on use of new equipment's	0	0	2000	0	2000
TOTALS		0	0	6000	4000	10000

Table: DETAILED ACTIVITY SHEET (4.4)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: July 2017 to March 2018
Activity: 4.4. Procurement of laboratory consumables and software

RESULT	<ul style="list-style-type: none"> • Purchase of laboratory consumables • Purchase of software • Renewal of software licenses
ACTIVITY	4.4. Procurement of laboratory consumables and software
OUTPUT	<ul style="list-style-type: none"> • Procured laboratory consumables • Procured computer software • Renewed software licenses
OUTPUT INDICATOR	SOURCE OF VERIFICATION
<ul style="list-style-type: none"> • Number of procured laboratory consumables • Number of software and licenses procured 	<ul style="list-style-type: none"> • Purchase receipts • Center leader
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> • Partial procurement of laboratory consumables to be conducted by December 2017. • Partial Procurement of computer software to be conducted by March 2018. • Partial renewal of computer licenses to be conducted by December March 2018.
PROCUREMENT	<ul style="list-style-type: none"> • Laboratory consumables purchase through tendering process • Purchase of computer software through tendering process • Renewal of computer software licenses through direct sourcing
RESPONSIBILITY FOR IMPLEMENTATION	Center leader

DURATION: 6 months		Commencement: July 2017		Completion: March 2018		
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> Graduate students Faculty members Prospective students 		PARTICIPANTS: Moi university procurement team Moi University technical staff Moi university finance team				
ASSUMPTIONS		There will be no delay in the procurement of laboratory consumables for research activities				
FINANCIAL IMPLICATIONS		Budget from the ACE-PTRE				
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
4.4. Procurement of laboratory consumables and software						
4.4.1	Laboratory consumables (textile materials, chemicals reagents, safety clothing, glassware)	-	10000	5,000	-	15,000
4.4.2	Software	-	-	3,000	-	3,000
4.4.3	Atomistic Tool Kit-Virtual Nano Lab licence	-	-	4,000	-	4,000
TOTALS		-	10000	12,000	-	22,000

Table: DETAILED ACTIVITY SHEET (4.7)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: October 2017 to March 2018
Activity: Establish new partnerships (MOUs) and strengthen existing ones in the area of teaching & research

RESULT	Faculty with specialised skills for teaching and researching activities. PhD students internships at the Centre partners
ACTIVITY	4.7. Support of faculty and ACE team to establish Memorandum of Understandings with partners (Travelling cost and Perdiem)
OUTPUT	Faculty/PhD students acquisition of specialised skills Exposure of faculty/PhD students to various learning/researching environments
OUTPUT INDICATOR Number of MOUs signed	SOURCE OF VERIFICATION <ul style="list-style-type: none"> Center leader MOU established
IMPLEMENTATION MILESTONES	Memorandum of Understandings establishment to be conducted by March 2018
PROCUREMENT	Air tickets procured
RESPONSIBILITY FOR IMPLEMENTATION	Center leader

DURATION: 5 months	Commencement: October 2017	Completion: March 2018					
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> Partner members PTRE ACE 	PARTICIPANTS: Moi University team Partners on MOU						
ASSUMPTIONS	<ul style="list-style-type: none"> Willingness of partners to sign MOUs for a period of two years 						
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE						
Budget Line Analysis 4.7. Support of faculty and ACE team to establish Memorandum of Understandings with partners (Travelling cost and Perdiem)	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total
4.7.1 Travelling cost and perdiem	0	10000	10000				20000
TOTALS	0	10000	10000				20000

Table: DETAILED ACTIVITY SHEET (4.8)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: September 2017 to June 2018
Activity: 4.8. Faculty/PhD student Mentorship on specialized skills (internships, mobility)

RESULT	Faculty with specialised skills for teaching and researching activities. PhD students internships at the Centre partners
ACTIVITY	4.8. Faculty/PhD student Mentorship on specialized skills (internships, mobility)
OUTPUT	Faculty/PhD students acquisition of specialised skills Exposure of faculty/PhD students to various learning/researching environments
OUTPUT INDICATOR Number of faculty/staff with specialized skills. Number of PhD internships Number of faculty internships	SOURCE OF VERIFICATION <ul style="list-style-type: none"> Training/attendance certificates Mentorship reports Internships reports Center leader
IMPLEMENTATION MILESTONES	Faculty/PhD student Mentorship on specialized skills to be conducted by June 2018
PROCUREMENT	n/a
RESPONSIBILITY FOR	Center leader

IMPLEMENTATION							
DURATION: 4 months		Commencement: September 2017		Completion: June 2018			
PRIMARY CONSTITUENTS:		PARTICIPANTS:					
<ul style="list-style-type: none"> Partner faculty members Graduate students 		Moi University team Partners					
ASSUMPTIONS		<ul style="list-style-type: none"> Willingness and availability of faculty for mentorship programme. Availability of a partner capable of providing specialized skills 					
FINANCIAL IMPLICATIONS		Budget from the ACE-PTRE					
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total
4.8. Faculty/PhD student Mentorship on specialized skills (internships, mobility)							
4.8.1	Support of staff mobility to public and private sector institutions of higher learning and industry (Travelling cost and Perdiem)	0	10000	10000	10000		30000
4.8.2	Support partners to mentorship logistics/mobility (Travelling, Perdiem, communication, venues, consultancy cost, training cost)	0	0	3,500	0		3500
TOTALS		0	10000	13500	10000		33500

Table: DETAILED ACTIVITY SHEET (4.9)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: July 2017 to March 2017
Activity: 4.9. Support faculty to submit grant proposals

RESULT	Awarded grant proposal for the Centre related research activities				
ACTIVITY	4.9. Support faculty to submit grant proposals				
OUTPUT	Establishment of new research projects at the Centre				
OUTPUT INDICATOR Number of awarded research grants					SOURCE OF VERIFICATION <ul style="list-style-type: none"> • Research grants letters • Center leader
IMPLEMENTATION MILESTONES	Application for new research grants by March 2018				
PROCUREMENT					
RESPONSIBILITY FOR IMPLEMENTATION	Center leader				
DURATION: 9months	Commencement: July 2017		Completion: March 2018		
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> • Faculty members 	PARTICIPANTS: Moi University human resource department Moi university finance team Moi university postgraduate committee				
ASSUMPTIONS	<ul style="list-style-type: none"> • Willingness and availability of qualified faculty to apply for research grants 				
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE				
Budget Line Analysis 4.9. Support faculty to submit grant proposals	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
4.9.1 Grant application logistics (Travel, Perdiem, communication, stationeries, venues, consultancy cost)	1000	2000	2,000	0	5,000
TOTALS	1000	2000	2000	0	5,000

Table: DETAILED ACTIVITY SHEET (4.11)

Key Activity: 4.0. Strengthen research capacity excellence
Time frame: October 2017 to June 2018
Sub-Activity: 4.11. Faculty/students collaborative research

RESULT	<ul style="list-style-type: none"> Establishment of research groups from each of the thematic area of the Centre Faculty publications in peer review journals 						
ACTIVITY	4.11. Faculty/students collaborative research						
OUTPUT	<ul style="list-style-type: none"> Operational research group offering research topic to prospective postgraduate students. Faculty publications in peer review journals 						
OUTPUT INDICATOR Number of new research group Number of joint publications in peer review journals				SOURCE OF VERIFICATION <ul style="list-style-type: none"> Publications Registration of new research group 			
IMPLEMENTATION MILESTONES	PTRE partner's Faculty/students collaborative research to be conducted by June 2018						
PROCUREMENT	n/a						
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader						
DURATION: 9 months	Commencement: October 2017			June 2018			
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> Graduate students Faculty members Prospective graduate students PTRE partner's staff 			PARTICIPANTS: Partners ACE team				
ASSUMPTIONS	Willingness and availability of faculty/staff to conduct state of the art research.						
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE						
Budget Line Analysis 4.11. Faculty/students collaborative research		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total
4.11.1	Research activities logistics (Travel, Perdiem, communication, venues, consultancy cost, materials, insurance) at PTRE			5000	5000		10000
4.11.2	Support partners students in research		2000				2000
TOTALS			2000	5000	5000		12000

TABLE: DETAILED ACTIVITY SHEET (4.12)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: October 2017 to March 2018
Activity: 4.12. Participation in external seminar workshop, conference and short courses

RESULT	<ul style="list-style-type: none"> Dissemination of research findings by the Centre students Acquisition of professional skills by the Centre students Networking of the Centre students with other local and regional students Participation in short courses by partners 						
ACTIVITY	4.12. Participation in external seminar workshop, conference and short courses						
OUTPUT	<ul style="list-style-type: none"> Seminars, workshops and conferences attendance by the Centre students. Presentations at seminar, workshops and conferences by the Centre students. Centre students knowledgeable in specific professional skills. 						
OUTPUT INDICATOR	Number of seminars, workshops and conferences attended Number of presentations made at seminars, workshops and conferences Number of professional skills training			SOURCE OF VERIFICATION			
				<ul style="list-style-type: none"> Conference abstracts Training record Professional skill certificates Conference records 			
IMPLEMENTATION MILESTONES	Support partners participation in external seminars, workshops and conferences to be conducted by December 2017						
PROCUREMENT	n/a						
RESPONSIBILITY FOR IMPLEMENTATION	Center leader						
DURATION: 6 Months	Commencement: Oct. 2017		Completion: March 2018				
PRIMARY CONSTITUENTS:	<ul style="list-style-type: none"> Graduate students Faculty members Prospective graduate students Partner's staff members 		PARTICIPANTS:				
			ACE team Partners				
ASSUMPTIONS	<ul style="list-style-type: none"> Availability of relevant conferences, seminars, workshops for the Centre students/faculty Centre students will conduct publishable/quality research 						
FINANCIAL IMPLICATIONS	Budget from the ACE-PTRE						
Budget Line Analysis	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr			Total
4.12.1 Professional skills training, short courses,	0	5000	5000	0			10000

	seminars and conference attendance logistics for faculty/PhD students (Travel, Perdiem, publication, visas, insurance) at PTRE							
4.12.2	support partners to seminar workshop, conference and short courses	0	1200	2000	0			3200
TOTALS		0	6200	7000	0			13,200

Table: DETAILED ACTIVITY SHEET (4.14)

Action plan: 4.0. Strengthen research capacity excellence
Time frame: October 2017 to June 2018
Activity: 4.14. Maintenance, insurance and servicing of Centre research vehicles (4X4 extended landcruiser, 32 seat minibus)

RESULT	Operational Centre vehicles and Local and regional travel	
ACTIVITY	4.14. Maintenance, insurance, servicing of Centre research vehicles (4X4 extended double cabin pickup, minibus), local and regional travel	
OUTPUT	Hitch free travel/commuting using the Centre vehicles	
OUTPUT INDICATOR Number of functioning Centre vehicles	SOURCE OF VERIFICATION <ul style="list-style-type: none"> • Maintenance record • Service certificate/record • Insurance policy 	
IMPLEMENTATION MILESTONES	Maintenance, insurance and servicing of the 4 x 4 landcruiser vehicle by June 2018	
PROCUREMENT	Procurement of maintenance, insurance, servicing services for the 4x4 extended landcruiser vehicle and by June 2018	
RESPONSIBILITY FOR IMPLEMENTATION	Centre leader	
DURATION: 11 months	Commencement: Aug 2017	Completion: June 2018
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> • Graduate students • Faculty members • Prospective graduate students 	PARTICIPANTS: Moi University procurement team Moi university finance team	
ASSUMPTIONS	Availability of quality maintenance, insurance, servicing services for the Centre vehicles, local and regional travels done	
FINANCIAL	Budget from the ACE-PTRE	

IMPLICATIONS						
Budget Line Analysis		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
4.14. Maintenance, insurance and servicing of Centre research vehicles						
4.14.1	Vehicle Insurance –Mini bus	-	-	-	-	-
4.14.2	Vehicle service and maintenance – Mini bus	-	-	-	-	-
4.14.3	Vehicle Insurance – 4x4 extended land cruiser	-	2000	-		2000
4.14.4	Vehicle service and maintenance – 4x4 extended land cruiser	-	500	500	500	1,500
4.14.5	Fuel and Perdiem for Local and regional travel	-	2000	2500	2000	6500
TOTALS		-	4500	3000	2500	10000

Table: DETAILED ACTIVITY SHEET (4.16)

Action plan: 4.0. Strengthen research capacity excellence

Time frame: July 2017 to November 2017

Activity: 4.16. Procurement of 4X4 extended land cruiser for the Centre field activities and meetings

RESULT	Purchased 4X4 extended land cruiser for Centre’s field activities and meetings	
ACTIVITY	4.16. Procurement of 4X4 extended land cruiser for the Centre field activities and meetings	
OUTPUT	Performance of the Centre field activities and meetings	
OUTPUT INDICATOR	Purchase of 4X4 double cabin pickup	SOURCE OF VERIFICATION • Vehicle log book
IMPLEMENTATION MILESTONES	A 4X4 extended land cruiser vehicle to be procured by Sept. 2017	
PROCUREMENT	Procurement of one 4X4 extended landcruiser vehicle through the tendering process.	
RESPONSIBILITY FOR IMPLEMENTATION	Center leader	
DURATION: 5 months	Commencement: July 2017	Completion: Sept. 2017
PRIMARY CONSTITUENTS:	PARTICIPANTS:	
<ul style="list-style-type: none"> • Graduate students • Faculty members • Prospective graduate students • Centre management team 	<ul style="list-style-type: none"> Moi University procurement team Moi university finance team Moi university transport department 	

ASSUMPTIONS		<ul style="list-style-type: none"> No delay in procurement of 4X4 extended landcruiser vehicle. One vehicle will be sufficient for all centre field activities and meetings 				
FINANCIAL IMPLICATIONS		Budget from the ACE-PTRE				
Budget Line Analysis 4.16. Procurement of 4X4 double cabin pickup for the Centre field activities and meetings		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
4.16.1	Purchase of one 4x4 double cabin pick-up	0	74,000	0	0	74,000
TOTAL		0	74,000	0	0	74,000

TABLE: DETAILED ACTIVITY SHEET (4.18)

Action plan: 4.0. Strengthen research capacity excellence

Time frame: July2017 to June 2018

Activity: 4.18. Trainings, benchmarks and exchange for Center accountant, procurement, administrator, social and environmental safeguard officer and support staff working under ACE

RESULT	<ul style="list-style-type: none"> Delivery of services efficiently in PTRE 	
ACTIVITY	4.18 Trainings, benchmarks and exchange for Center accountant, procurment, administrator, social and environmentl safeguard officer and support staff working under ACE	
OUTPUT	<ul style="list-style-type: none"> Seminars, workshops and short courses attended by the Centre staff. 	
OUTPUT INDICATOR Number of seminars, workshops and short courses attended Number of professional skills training		SOURCE OF VERIFICATION <ul style="list-style-type: none"> Training record Professional skill certificates
IMPLEMENTATION MILESTONES	Support for trainings, benchmarks and exchange for Center accountant, procurment, administrator, social and environmentl safeguard officer and support staff working under ACE to be done by June 2017	
PROCUREMENT	n/a	
RESPONSIBILITY FOR IMPLEMENTATION	Center leader	
DURATION: 12 Months	Commencement: July. 2017	Completion: June 2018
PRIMARY CONSTITUENTS: <ul style="list-style-type: none"> ACE staff 	PARTICIPANTS: ACE staff	

ASSUMPTIONS		<ul style="list-style-type: none"> Availability of relevant courses and seminars for the ACE staff 					
FINANCIAL IMPLICATIONS		Budget from the ACE-PTRE					
4.18 Trainings, benchmarks and exchange for Center accountant, procurment, administrator, social and environmentl safeguard officer and support staff working under ACE		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr		Total
4.18.1	Professional skills training, short courses, seminars attendance logistics (Travel, Perdiem, fees) at PTRE	3000	1000	1000	0		5000
TOTALS		3000	1000	1000	0		5000

Table: DETAILED ACTIVITY SHEET (6.0)

Action Plan: 6.0. Observation of best practices in ACE financial operation
Time frame: July 2017 to June 2018
Activity: Financial management

RESULT	Elaborate financial report	
ACTIVITY	Carry out financial audit and compile a report on project funds	
OUTPUT	<ul style="list-style-type: none"> Audited and approved financial report 	
OUTPUT INDICATOR	<ul style="list-style-type: none"> Financial records 	SOURCE OF VERIFICATION
		<ul style="list-style-type: none"> Project accounts records Center leader
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Carry out financial audits every year by June 2018 Compile the project funds use every year by June 2018 Approve verified financial reports by June 2018 	
PROCUREMENT		
RESPONSIBILITY FOR IMPLEMENTATION	Center leader, Project accountant, Internal university auditor	
DURATION: 12 months	Commencement: July 2017	Completion: June 2018
PRIMARY CONSTITUENTS:	PARTICIPANTS:	

<ul style="list-style-type: none"> Steering Committee 		Moi university ACEII-PTRE team Moi university finance team				
ASSUMPTIONS		<ul style="list-style-type: none"> Availability of detailed records for all financial transactions 				
FINANCIAL IMPLICATIONS		Budget from the ACE-PTRE				
Budget line: 6.0. Observation of best practices in ACE financial operation		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
6.1.0	Financial reporting	-	-	-	-	-
6.2.0	Financial audit	-	-	-	500	500
6.3.0	Transparent financial management enhancement	-	-	-	-	-
6.4.0	Students sponsors refunds processing	-	-	-	-	-
TOTALS		-	-	-	500	500

Table: DETAILED ACTIVITY SHEET (7.0)

Action Plan: 7.0 Observation of best practices in ACE procurement operation
Time frame: July 2017 to June 2018
Activity: Procurement management

RESULT	Elaborate procurement report	
ACTIVITY	Carry out procurement process audit and compile a report on project activities	
OUTPUT	<ul style="list-style-type: none"> Audited and approved procurement report 	
OUTPUT INDICATOR	<ul style="list-style-type: none"> Procurement records 	SOURCE OF VERIFICATION
		<ul style="list-style-type: none"> Project Procurement records Center leader
IMPLEMENTATION MILESTONES	<ul style="list-style-type: none"> Carry out Procurement activities audits every year by June 2018 Compile the project items purchase procuring every year by June 2018 Approve verified procurement reports by June 2018 	
PROCUREMENT		
RESPONSIBILITY FOR IMPLEMENTATION	Center leader, Supplies office	
DURATION: 12 months	Commencement: July 2017	Completion: June 2018
PRIMARY CONSTITUENTS:	PARTICIPANTS:	
<ul style="list-style-type: none"> Steering Committee 	Moi university ACEII-PTRE team	

		Moi university Procurement team				
ASSUMPTIONS		<ul style="list-style-type: none"> Availability of detailed records for all procurement activities 				
FINANCIAL IMPLICATIONS		Budget from the ACE-PTRE				
Budget Line Analysis 7.0 Observation of best practices in ACE procurement operation		1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	Total
7.1.0	Procurement audit	-	-	-	500	500
7.2.0	Ensuring transparent procurement process	0	0	0	0	0
TOTALS		-	-	-	500	500

Appendix I: Pathway for number of students sponsored to train in the ACE

Results Indicators*	Unit of Measure	Category	Group	Cumulative Target Values					Definition
				YR 1	YR 2	YR3	YR 4	YR5	
1. Total no. of students (national and regional) enrolled in ACEs: (i) Master's [no. of which are female] and (ii) PhD programs [no. of which are females]	No	MSc	National	8 (2F)	8 + 10 (3F) = 18	18 + 11 (4F) = 29	29 + 11 (4F) = 40	40*	This indicator measures the total number of students (national and regional) enrolled in (i) Masters, who have successfully completed at least one semester and (ii) PhD programs at ACEs The target of zero in year one is because a need assessment will be done in year to aid in short course development
			Regional	4 (1F)	4 + 5 (2F) = 9	9 + 6 (2F) = 15	15 + 5 (2F) = 20	20*	
		PhD	National	5 (2F)	5 + 7 (2F) = 12	12 + 9 (3F) = 21	21*	21*	
2. Total no. of students/staff (national and regional) [no. of which are females] undertaking short courses	No		Regional	2 (1F)	2 + 3 (1F) = 5	5 + 4 (1F) = 9	9*	9*	
		Short course	National	0 (0F)	105 (32F)	105 + 105 (32F) = 210	210 + 105 (32F) = 315	315 + 105 (32F) = 420	
			Regional	0 (0F)	45 (14F)	45 + 45 (14F) = 90	90 + 45 (14F) = 135	135 + 45 (14F) = 180	

* Total number of students who would have been partially or fully sponsored