









Africa Centre of Excellence for Development Impact (ACE Impact)

[Renewal of Africa Centre of Excellence in Oilfield Chemicals Research (CEFOR)]

[ACE proposal number: 009; Grant ID №: 60029544]

Implementation Plan (2020 – 2024)

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Table of Contents

<u>ltem</u>	<u>Description</u>	<u>Page</u>
1	Cover Page	1
2	Table of Contents	2
3	List of Tables	3
4	List of Figures	3
5	List of Abbreviations and Acronyms	4
6	Narrative Summary	5
7	Overview of Planned Outputs, Revenue Generation, Activities and Cost for Project	7
	(i) Education, Teaching and Learning	7
	(ii) Research	8
8	Timing of Planned Activities for Entire Project Period (Gantt Chart)	16
9	Implementation Arrangements	18
10	Sustainability	22
11	Institutional Impact	25
12	Sexual Harassment Policy	29
13	Environmental and Social Safeguards	40
14	Performance Monitoring	42
15	Budget Overview for Entire Project Period	45
16	Detailed Activity Sheets (one for each activity)	46
17	Annexures:	
	- Annexure A: Brief Terms of Reference (TOR) for each ACE team member	60
	- Annexure B: Financial Management Manual	64
	- Annexure C: Procurement Manual	65
	- Annexure D: Health, Safety and Environmental Manual	71

Table of Tables

<u>Table</u>	<u>Description</u>	<u>Page</u>
1	Overview of expected outputs and related income (US\$) for years 1-5	9
2	Overview of expected activities and expenditures (US\$) for years 1-5	13
3	Overview of budget (US\$) distribution among partners for years 1-5	16
4	Work plan for the ACE-CEFOR Impact Project period	17
5	Sectoral Advisory Board	21
6	International Scientific Advisory Board	24
7	Overview of collaborating and partnering centres with programmes run	27
8	Overview of core project team	28
9	ACE-CEFOR disbursement linked budget distribution for 2020 - 2024	42
10	Indicative budget (2020 – 2024) with split between partners	45
11	Overview of ACE-CEFOR targets and outputs for years 2020-2024	54
12	Overview of ACE-CEFOR budget and funds (US\$) generation for years 2020-2024	57

Table of Figures

<u>Figure</u>	<u>Description</u>	<u>Page</u>
1	Organogram of the ACE-CEFOR	19
2	Organisation chart of Steering Committee members	20

List of Abbreviations and Acronyms

AAU: Association of African Universities

ACE: Africa Centre of Excellence ASP: Alkaline-Surfactant-Polymer

BA: Bachelors of Arts

CEFOR: Centre for Oil Filed Chemicals Research

CEOR: Chemical Enhanced Oil Recovery

CS: Consultant Services DC: Direct Contracting

DLI: Disbursement Linked Indicator
DLR: Disbursement Linked Result
EEP: Eligible Expenditure Program
EMP: Environmental Management Plan

G: Goods

GDP: Gross Domestic Product

HCÉRES: High Council for Evaluation of Research and Higher Education of France

HSE: Health. Safety and Environment

ICT: Information and Communication Technology

IP: Implementation Plan
IPR: Intellectual Property Right
IPS: Institute of Petroleum Studies

ISO: International Standards Organisation

IT: Information Technology

IWCF: International Well Control Forum KPI: Key Performance Indicator

LNG: Liquified Natural Gas

MDAs: Ministries/Departments/Agencies

M&E: Monitoring and Evaluation

MSc: Master of Science

NCB: National Competitive Bidding

NCDMB: Nigerian Content Development Monitoring Board

NCS: Non-Consulting Services

NES: Nigerian Environmental Society NIM: Nigerian Institute of Management

NISP: Nigeria Institute of Safety Professionals

NREP: National Registry of Environmental Practitioners, USA

NSE: Nigerian Society of Engineers
NUC: National Universities Commission

OP: Operating Cost
PhD: Doctor of Philosophy
PPP: Public-Private Partnership

PTDF: Petroleum Training and Development Fund

RF: Results Framework

S: Services

SPDC: Shell Petroleum Development Company

SPE: Society of Petroleum Engineers

SSS: Single Source Shopping

SUT: Society for Underwater Technology

TOR: Terms of Reference

TR: Training (excluding hiring consultants)

W: Works World Bank

Implementation Plan (2020 - 2024)

1. NARRATIVE SUMMARY

Focus on motivation, objectives, methodology, results and partnerships. Must include a section on important changes made. (*Please remember to use the reviewers' feedback as applicable*)

Development Challenge and Expected Impact

The Africa Centre of Excellence in Oilfield Chemicals Research (ACE-CEFOR) is one of the 22 World Bank-funded Centres of Excellence established in 2013, to promote home grown and regional research networks that will help to develop human capital in Africa. The goal of ACE-CEFOR is to develop the Nigerian Oil and Gas Industry (in particular) and those of other African countries (in general) with emerging Oil and Gas Sector where oil and gas have been discovered. The development challenge, which ACE-CEFOR seeks to address is the dearth of competent manpower trained to handle existing and emerging challenges in the Oil and Gas industry. Thus, the motivation for seeking and securing renewal of World Bank grant is the apparent lack of research Centres in the Gulf of Guinea, and indeed Africa, capable of producing competent researchers in Petroleum and related disciplines and to consolidate on already achieved development results. Specifically, we possess good learning infrastructure, focus on research programmes relevant to West and Central Africa as well as regional trainings relevant to Africa. We have high capacity to mobilise financial resources from the private sector, and a more autonomous operational identity required for efficient project implementation.

ACE-CEFOR operates on the basis of the Triple Helix model where there is a dynamic nexus of government-academia-industry partnership and thus, creates a research network of higher institutions for knowledge and technology transfer. The intervention shall contribute towards increasing the number of new students with about 30% regional students enrolment, high number of students and faculties placed on one month internship at any of ACE-CEFOR's several partnering companies, local, regional or international institutions relevant to the areas of interests of the interns. One major outcome of the research activities at ACE-CEFOR in ACE I is the fabrication of some equipment/apparatus by research students of the Centre. The equipment/apparatus fabricated include: Mini-loop for gas hydrates inhibition research; Equipment/apparatus for carbon nanotubes production, carbon nanotubes for drilling mud formulations; Mini-loop for wax deposition and pour point depressant research. The driving slogan at the Centre is: "Internationalization of Higher Education at Home".

Education and Research Objectives

Our mission is to provide international postgraduate training and conduct multi-disciplinary applied research in Engineering and the Sciences for sustainable development of the oil and gas industry in Africa. The specific project objectives are:

- Promoting home grown and regional research networks that will develop human capital in Africa.
- Strengthening human capacity and serve as training hub for Oil and Gas industry workforce in Africa.
- Filling gaps in labor market demands for skills within these specialized areas.
- Increasing capabilities of faculties and students in Africa through quality postgraduate education, knowledge transfer and internship programmes.
- To run short courses in Petroleum and related disciplines.
- To carry out consultancy services for the oil and gas industry.

Methodology for Learning and Research

We embark on student-centred postgraduate level teaching/training and demand-driven applied research that, ultimately, help to upgrade and strengthen the Centre and the University for greater impacts. The University has embarked on several national and international collaborations and thus, bringing together diverse cultures, academic programmes, multidisciplinary and technology applications. Engaging in viable public-private partnerships (PPPs) with relevant industry partners allows greater involvement in our postgraduate (masters' and doctorate) programmes. The postgraduate courses and research are designed, organised, curricula reviewed and taught on modular basis with teaching responsibility shared amongst experienced and active resource persons from the collaborating universities and Industry partners. The design of academic programmes at the Centre followed global best practice and targeted at preparing students with the relevant capacity to conduct extensive and sustained

Implementation Plan (2020 - 2024)

applied research that shall lead to publications of high quality papers in reputable international and local journals as well as innovations that are patentable with the appropriate Intellectual Property Rights. Also, staff development is a priority through support for faculty and staff to attend national and international professional/specialised short courses, workshops, conferences and symposia.

Anticipated Results (achieved and expected results in quantitative and qualitative terms)
The progress and financial reports are posted on the project website (www.aceuniport.org). In September 2019, our PhD programmes in Petroleum and Gas Engineering/Energy Economics secured international accreditation from the High Council for Evaluation of Research and Higher Education (HCÉRES) of France. Earlier results achieved include:

- In April 2017, secured national accreditation for 12 postgraduate programmes from National Universities Commission (NUC).
- In June 2017, completed international gap assessment for Petroleum and Gas Engineering.
- Published over 200 papers in reputable journals arising from students research works.
- In 2017/18 Academic Session, 15 regional PhD candidates (out of 25 applications).
- Secured NREP (USA) certification for faculty and the graduates from the Centre.
- Others are: Language laboratory; E-library; Smart Class/Seminar rooms; Good learning environment; Video/e-Conferencing facilities; NgREN internet access, and Central Engineering and Science laboratories.

Over the next five-year project period under the renewal ACE Impact Project, enrolment/ graduation, publications and internship records shall be available on our website. The key expected results are: 56 PhDs (17 regional); 80 MScs (25 regional); 220 Short Courses (66 regional); 3 Accreditations (one each for National, Gap Assessment, International); one New/ Reviewed Course; 50 Publications (10 regional), and 116 Internships for students/faculty (28 regional). Other expected results include patenting of researches and increase in externally generated revenues as captured in the financial statement and report on number of faculty trained in areas relevant to the ACE programme, percent of non-nationals by gender studying per semester and mentorship of young faculty and postgraduate students. Involvement of industry partners in curriculum development/review – signing of memoranda of understanding and agreements with collaborating partners, organising industry-relevant short courses and certification of our students and faculty by national and international bodies like NREP.

Academic and Sectoral Partners with Contributions

For continuous quality improvement to make our programmes locally responsive, globally relevant and receive wider industry acceptance, strategic partnerships/collaborations include:

Professional Bodies: Nigerian Institute of Management (NIM); Nigerian Environmental Society (NES); Society of Petroleum Engineers (SPE); National Registry of Environmental Practitioners (NREP), USA; Nigeria Institute of Safety Professionals (NISP); Society for Underwater Technology (SUT); Nigerian Society of Engineers (NSE), and International Well Control Forum (IWCF).

Oil and Gas Organisations: Nigerian National Petroleum Corporation (NNPC); Pollution Control & Environmental Management (POCEMA) Consultants; Emerald Energy Resources Limited; Energy Information Services (EIS); FUGRO Nigeria Limited; Keedak Nigeria Limited; Ansett Group, and LASER Engineering Nigeria Limited.

Academic Institutions: IFP School, France (joint M.Sc. degree in Petroleum Engineering and Project Management); University of Mines and Technology, Tarkwa, Ghana; University of Witwatersrand, Johannesburg (Wits), South Africa; University of Abomey-Calavi, Benin Republic; University of Lome, Togo, and Hosting the African Virtual University (AVU) in Nigeria.

Ministries/Parastatals/Agencies: National Research Institute for Chemical Technology (NARICT); National Office for Technology Acquisition and Promotion (NOTAP); Petroleum Technology Development Fund (PTDF); Tertiary Education Trust Fund (TETFund); Federal Ministry of Petroleum Resources (FMPR); Nigeria National Petroleum Corporation (NNPC) (R&D), and Nigeria Content Development & Monitoring Board (NCDMB).

Implementation Plan (2020 - 2024)

2. OVERVIEW OF PLANNED OUTPUTS, REVENUE GENERATION, ACTIVITIES AND COST FOR PROJECT

The activities at the Centre shall focus on education, teaching, learning and applied research to deliver on the planned outputs, revenue generation and cost outlay to deliver as planned under each of the 7 Disbursement Linked Indicators (DLIs).

(i) EDUCATION, TEACHING AND LEARNING

Upgrade and strengthening of the Centre would be implemented through postgraduate level teaching and demand-driven applied research. The University has embarked on several national and international collaborations and thus, bringing together diverse cultures, academic programmes, multidisciplinary and technology applications. Engaging in viable public-private partnerships (PPPs) with relevant industry partners allows greater involvement in our postgraduate (masters' and doctorate) programmes. The postgraduate courses and research are designed, organised and taught on modular basis with teaching responsibility shared amongst experienced and active resource persons from the collaborating universities and industry partners. Also, staff development is a priority through support for faculties to attend national and international specialised short-term trainings, workshops, conferences and symposia.

In addition to the above intensive modular taught courses, students shall be made to participate in several regular conferences, seminars, and workshops to further develop their relevance in the area of Oilfield Chemicals and related disciplines. All the afore-listed intensive modular courses must be passed by every participating faculty and student as part of the requirements for continuation to conduct research leading to the award of both the master's and doctorate degrees in the various programs of the ACE-CEFOR.

The methodology will also include curricula review, provide places for, at least, one month internship placement for our postgraduate students and faculties. Language laboratory and e-learning centre had been established for enhanced learning activities. We will organise international conferences and workshops and increase the frequency of publishing our existing journals.

The academic programme of the ACE-CEFOR has been designed following global best practice and targeted at preparing students with the relevant capacity to conduct extensive and sustained research that shall lead to the publication of high quality papers in reputable international and local journals as well as innovations that are patentable with the appropriate Intellectual Property Rights (IPR).

Vigorous awareness campaign shall be conducted and signing of memorandum of understanding within and outside the region. Already we have accomplished local accreditation of our programmes and pursuing the international accreditation. Therefore, our strong university-industry relationships with the resultant cross-fertilisation of ideas have continued to be a veritable source of solutions to development challenges especially as they relate to the oil and gas sector. We engage in prompt publication of research results to strengthen research capabilities of our faculties. To enhance sustainability we are committed to increasing our externally generated revenues from companies and donor agencies through training, applied research, continuing education and capacity building. The Centre also serve as the facilitator of the Nigerian Local Content Initiative and propagate the culture of excellence in sustained learning, and research hub for research fellows in **Oilfield Chemicals** in the Gulf of Guinea.

To attract regional and oversea faculties, we have contacted and engaged Nigerians in Diaspora with higher degrees and professional experience to be appointed as Visiting Lecturers and PhD Supervisors. We also conducted a Road Show to companies to highlight our activities as well as advertise in the internet and International Magazines to attract students from other African countries. This will enhance capacity building, provide platform for quality training and applied research to address the regional challenges in the countries where oil has been discovered in Africa.

Implementation Plan (2020 - 2024)

(ii) RESEARCH

There are several multi-disciplinary research teams executing applied researches relevant to the oil and gas industry needs. Thus, the research agenda for ACE-CEFOR Impact project include the following:

- Deepen research in the use of agro and industrial wastes for the production of oilfield chemicals. Such chemicals include but not limited to: Corrosion Inhibitors, Scale Inhibitors, Gas Hydrate Inhibitors, Surfactants, Pour Point Depressants, Alkaline-Surfactant-Polymer (ASP) for Chemical Enhanced Oil Recovery (CEOR), Retarders and Thinners using agrowastes containing tannins, Biocides and Demulsifiers for crude oil production enhancement.
- Beneficiation of locally available solid minerals for oilfield operations as in drilling mud formulations and cementing. Such solid minerals include: Barite, Bentonite clay, Hematite and Gypsum for local cements production for well completion, and nanoparticles for reservoir studies, drilling operations and production enhancement.
- Economics of using locally available raw materials for the production of high quality oilfield chemicals for consumption in sub-Saharan Africa. It will include up-scaling of the oilfield chemicals so far produced that have passed both laboratory and field trials.
- Remediation of degraded environment due to oil and gas activities.
- Developing software solutions for oilfield operations using data analytics techniques.

From 2014-2018 of its operations under ACE 1, ACE-CEFOR produced over 12 oilfield chemicals, with journal articles as evidence and to the credit of the Centre. ACE-CEFOR Impact project will carry out field trials of the chemicals and eventually commercialise the chemicals that passed both laboratory and field trials. Commercialisation of locally produced oilfield chemicals will have high impact on the industry in terms of reduction in cost of exploration, production and exploitation of oil and gas in sub-Saharan Africa.

The field trials of the oilfield chemicals that have passed laboratory tests will be carried out with the Centre's industry partners. Such field trials need funds for planning and execution of the project. ACE-CEFOR does not have the financial resources to execute the field trials. Therefore, part of the funds being requested from the World Bank under the ACE-CEFOR Impact project is for strengthening and deepening the activities of the Centre so as to achieve the objectives of ACE-CEFOR, which include:

- Building capabilities of faculties and students in Africa through quality postgraduate education, knowledge transfer and internship programmes.
- Strengthening human capacity and serve as a training hub for oil and gas industry workforce in Africa.
- Filling identified gaps in labour market demands for skills within the specialised activities of the oil and gas industry.
- Promoting home grown and regional research networks that will develop human capital in Africa.

One major outcome of the research activities at ACE-CEFOR is the fabrication of some equipment/apparatus by research students and faculty members undertaking applied research at the Centre. The equipment/apparatus fabricated include:

- Mini-loop for gas hydrates inhibition research.
- Equipment/apparatus for carbon nanotubes production. Carbon nanotubes for drilling mud formulations.
- Mini-loop for wax deposition and pour point depressant research.

ACE-CEFOR Impact project will take these fabricated equipment/apparatus, to the next level through the processes of research, innovation, development and commercialisation of products. Each of these activities needs fund for execution hence, the request for funds from the World Bank.

To sustain the research profile of the Centre, ACE-CEFOR Impact project will as from 2019 make provisions for Professorial Chair and post-doctoral fellowships in oilfield operations and chemicals research, having graduated over forty-five (45) doctoral students within four (4) years of its establishment. ACE-CEFOR has need for more funds to strengthen and deepen its experience in oilfield chemicals research and training.

Table 1: Overview of expected outputs and related income (US\$) for years 1-5

ACE Results	Description of Results		Percent of the DLI (in %)	Unit Price	Expected Revenue	
DLI 1	Readiness					
DLI 1.1	Basic readiness	0	0	75,000	0	
DLI 1.2	Full readiness	0	0	225,000	0	
	Subtotal for DLI 1	0			0	
DLI 2	Development Impact					
DLI 2.1	Self assessment of development impact (tracer studies; employers' ratings, etc)	4	0	25,000	100,000	
DLI 2.2	Independent external evaluation of development impact	4	0	25,000	100,000	
	Subtotal for DLI 2	8			200,000	
DLI 3	Quantity of Students					
DLI 3.1.1	New national PhD students male	27	0	10,000	270,000	
DLI 3.1.2	New national PhD students female	12	0	12,500	150,000	
DLI 3.1.3	New regional PhD students male	12	0	12,500	150,000	
DLI 3.1.4	New regional PhD students female	5	0 15,600		78,000	
	Subtotal for DLI 3.1	56			648,000	
DLI 3.2.1	New national Masters students male	39	0	2,000	78,000	
DLI 3.2.2	New national Masters students female	17	0	2,500	42,500	
DLI 3.2.3	New regional Masters student's male	17	0	4,000	68,000	
DLI 3.2.4	New regional Masters students female	7	0	5,000	35,000	
	Subtotal for DLI 3.2	80			223,500	
DLI 3.3.1	New national short course students male	107	0	400	42,800	
DLI 3.3.2	New national short course students female	47	0	500	23,500	
DLI 3.3.3	New regional short course students male	46	0	800	36,800	
DLI 3.3.4	New regional short course students female	20	0	1,000	20,000	
	Subtotal for DLI 3.3	220			123,100	
	Subtotal for DLI 3				994,600	

Table 1: Overview of expected outputs and related income (US\$) for years 1-5 (cont'd)

ACE Results	Description of Results	Expected output in numbers	Percent of the DLI (in %)	Unit Price	Expected Revenue
DLI 4	Quality of Education & Research				
DLI 4.1.1	National accreditation	1	0	100,000	100,000
DLI 4.1.2	Self-assessment/gap assessment following International standards	1	0	100,000	100,000
DLI 4.1.3	International accreditation	1	0	300,000	300,000
DLI 4.1.4	New/reviewed courses meeting international standards & Sector Advisory Board Approval	2	0	50,000	100,000
	Subtotal for DLI 4.1				600,000
DLI 4.2.1	ACE International research publications with national partners	35	0	10,000	350,000
DLI 4.2.2	ACE International research publications with regional partners	15	0 15,000		225,000
	Subtotal for DLI 4.2	50			575,000
DLI 4.3.1	Infrastructure improvement for research and learning (procurement and civil works) Milestone 1: Secure plan approval, complete procurement process and commence office extension, canteen, externals, fence / security house	1	0	75,000	75,000
DLI 4.3.2	Infrastructure improvement for research and learning (procurement and civil works) Milestone 2: Complete office extension, canteen, externals, fence / security house	1	0	75,000	75,000
DLI 4.3.3	Infrastructure improvement for research and learning (procurement and civil works) Milestone 3: Purchase office and laboratory equipment and facilities	1	1 0		75,000
DLI 4.3.4	Infrastructure improvement for research and learning (procurement and civil works) Milestone 4: Install and commission office and laboratory equipment and facilities	1	0	75,000	75,000
	Subtotal for DLI 4.3	4			300,000
	Subtotal for DLI 4				1,475,000

Table 1: Overview of expected outputs and related income (US\$) for years 1-5 (cont;d)

ACE Results	Description of Results	Expected output in numbers	Percent of the DLI (in %)	Unit Price	Expected Revenue
DLI 5	Relevance of Education & Research				
DLI 5.1.1	Externally generated revenue from regional or private sector	400,000	0	2	800,000
DLI 5.1.2	Externally generated revenue from other sectors	572,000	0	1	572,000
	Subtotal for DLI 5.1				1,372,000
DLI 5.2.1	Number of male national students or staff with, at least, 1-month internship	64	0	1,000	64,000
DLI 5.2.2	Number of female national students or staff with, at least, 1-month internship	27	0	1,000	27,000
DLI 5.2.3	Number of male regional students or staff with, at least, 1-month internship	27	0	1,500	40,500
DLI 5.2.4	Number of female regional students or staff with, at least, 1-month internship	12	0	1,500	18,000
	Subtotal for DLI 5.2	130			149,500
DLI 5.3	Number of new entrepreneurship, innovation, start-up companies, and commercialisation support programs	1	0	100,000	100,000
	Subtotal for DLI 5				1,621,500
DLI 6	Timeliness/Quality of Fiduciary Management				
DLI 6.1	Timely fiduciary reporting	5	0	15,000	75,000
DLI 6.2	Functional oversight (internal audit unit)	4	0	15,000	60,000
DLI 6.3	Web transparency (Centre expenditures)	5	0	15,000	75,000
DLI 6.4	Quality of procurement (planning)	4	0	15,000	60,000
	Subtotal for DLI 6				270,000

Table 1: Overview of expected outputs and related income (US\$) for years 1-5 (cont;d)

A.C.E.		Expected	Percent	11.29	F	
ACE Results	Description of Results		of the DLI (in %)	Unit Price	Expected Revenue	
DLI 7	Institutional Impact					
DLI 7.1	UniPort university-wide regional strategy	1	0	100,000	100,000	
DLI 7.2.1	UniPort undertakes open, merit-based selection of Vice Chancellor	1	0	200,000	200,000	
DLI 7.2.2	UniPort undertakes open, merit-based selection of deans	1	0	50,000	50,000	
	Subtotal for DLI 7.2				250,000	
DLI 7.3.1	UniPort conducts gap assessment/self- evaluation as part of international accreditation	1	0	75,000	75,000	
DLI 7.3.2	UniPort secures institutional international accreditation/ISO Certification		0	200,000	200,000	
	Subtotal for DLI 7.3				275,000	
DLI 7.4	UniPort participates in PASET Benchmarking initiative and submits intervention plan		0 50,000		50,000	
DLI 7.5	Milestone on institutional impact (support UniPort Foundation for development/fundraising initiative; strengthen ACE partnering and related departments/university research management; institutional marketing & communications)			100,000	100,000	
DLI 7.6	ICT services for innovation in teaching and research (increase internet bandwidth; annual e-library subscriptions: regional network		0	100,000	200,000	
	Subtotal for DLI 7				975,000	
	Total revenue expected triggered from ACE program				5,000,000	
	Additional government funding support				-	
	Other external revenue generation				536,100	
	Total Income				5,536,100	

Table 2: Overview of expected activities and expenditures (US\$) for years 1-5

			2019 B	Budget Estin	nate (US\$)	
Code	Priority Rank	Result/Activity/Task for 2019	ACE leader	Partners	Total	
Action Plan 1	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)	
DLI#1		Readiness				
	1	DLI#1.1: Basic readiness (Implementation Plan; Procurement and Financial Management Manuals; Official designation of core team members; Non-staff student representative designated)	0	0	0	
	1	DLI#1.2: Full readiness (Project Management Certification by Centre Leader; Functional website - <u>www.aceuniport.org</u> ; Students handbook uploaded; Sectoral Advisory Board constituted)	0	0	0	
		Sub-total	0	0	0	
Action Plan 2	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)	
DLI#2		Development Impact				
	1	DLI#2.1: 4nos Self assessment of development impact	100,000	0	100,000	
	1	DLI#2.2: 4nos Independent external evaluation of impact	100,000	0	100,000	
		Sub-total	200,000	0	200,000	
Action Plan 3	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)	
DLI#3		Quantity of Students				
	1	DLI#3.1: 56 PhD students in ACE with 17 regional students and 17 females	648,000	0	648,000	
	1	DLI#3.2: 80 Masters students in ACE with 24 regional students and 24 females	223,500	0	223,500	
	1	DLI#3.3: 220 Short course students in ACE with 66 regional students and 67 females	123,100	0	123,100	
		Sub-total	994,600	0	994,600	

Table 2: Overview of expected activities and expenditures (US\$) for years 1-5 (cont'd)

Code	Priority Rank	Result/Activity/Task for 2019	2019 B	Budget Estin	nate (US\$)
Action Plan 4	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)
DLI#4		Quality of Education & Research			
	1	DLI#4.1: Ino National accreditation; Ino Self-assessment/gap assessment; Ino International accreditation; 2nos New/reviewed courses	600,000	0	600,000
	1	DL1#4.2: 50 published articles in internationally recognised and peer reviewed journals 15 of which are with regional partners	500,000	75,000	575,000
	1	DLI#4.3: Complete Milestones 1, 2, 3 and 4 for Infrastructure improvement for research and learning (procurement and civil works)	300,000	0	300,000
		Sub-total	1,400,000	75,000	1,475,000
Action Plan 5	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)
DLI#5		Relevance of Education and Research			
	1	DLI#5.1: \$400,000 generated from regional sources with \$572,000 from other sectors	1,097,600	274,400	1,372,000
	1	DLI#5.2: 130 Internship students and faculty in ACE with 39 regional interns and 39 females	121,700	27,800	149,500
	1	DLI#5.3: Ino New entrepreneurship program	100,000	0	100,000
		Sub-total	1,319,300	302,200	1,621,500
Action Plan 6	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)
DLI#6		Timeliness/Quality of Fiduciary Management			
	1	DLI#6.1: 5nos Timely fiduciary reporting	75,000	0	75,000
	1	DLI#6.2: 4nos Functional oversight (internal audit unit)	60,000	0	60,000
	1	DL1#6.3: 5nos Web transparency (Centre expenditures)	75,000	0	75,000
	1	DLI#6.4: 4nos Quality of procurement (planning)	60,000	0	60,000
		Sub-total	270,000	0	270,000

Table 2: Overview of expected activities and expenditures (US\$) for years 1-5 (cont'd)

Code	Priority Rank	Result/Activity/Task for 2019	2019 B	Budget Estin	mate (US\$)				
Action Plan 7	(1 highest 5 lowest)	(Expected output)	(Total for ACE leader)	(Total for partners)	(Total of component)				
DLI#7		Institutional Impact							
	1	DL1#7.1: Ino Uniport university-wide regional strategy	100,000	0	100,000				
	1	DLI#7.2: 2nos Open, merit-based selection of Vice Chancellor and deans	250,000	0	250,000				
	1	DLI#7.3: Ino Gap assessment/self-evaluation and Ino Institutional international accreditation/ 275,000 SO Certification				275,000			
	1	DLI#7.4: Ino Uniport participation in PASET Benchmarking initiative and submits intervention plan	50,000	0	50,000				
	1	DLI#7.5: Ino Milestone on institutional impact (support UniPort Foundation for development/fundraising initiative; strengthen ACE partnering and related departments/ university research management; institutional marketing & communications)	100,000	0	100,000				
	1	DLI#7.6: 2nos ICT services for innovation in teaching and research (increase internet bandwidth; annual e-library subscriptions; regional network memberships like NgREN; access to high performance computing/applications; improved access to service by students/faculty)	200,000	0	200,000				
	Sub-total 975,000			0	975,000				
	Total reven	ue expected triggerd from ACE program	4,622,800	377,200	5,000,000				
	Additional	government funding support							
	Other exter	rnal revenue generation	536,100		536,100				
	TOTAL IN	COME	5,158,900	377,200	5,536,100				

Table 3: Overview of budget (US\$) distribution among partners for years 1-5 2020 - 2024 Budget Estimate (US\$) University University University of University of Industry partners: of Abomey of Lome, Mines and Witwatersrand, Calavi, Technology, Johannesburg, Togo FUGRO Nig. Ltd.; Tarkwa, Benin South Africa Keedak Nig.Ltd.; Republic Ghana Result/ Ansett Group; Code Activity/Task **Total** Partner for 2020-2024 LASER **Budget** Engineering Nig. Ltd. **POCEMA** Total E & P Nig. Ltd. (Component (Component (Component (Component (Component total (Partners Action (Expected total for total for total for total for for industry total of Plan 4 output) partner) partner) partner) partner) partners) component) Quality Education and Research DL1#4 DL1#4.2 9,375 9,375 9,375 28,125 18,750 75,000 (Partners (Component (Component (Component (Component (Component total Action (Expected total for total for total for total for for industry total of Plan 5 output) partners) partner) partner) partner) partner) component) Quality Education and Research DL1#5.1 34,300 34,300 34,300 102,900 68,600 274,400 DL1#5 DL1#5.2 3,475 3,475 3,475 10,425 6,950 27,800 Sub-total 37,775 37,775 37,775 113,325 75,550 302,200 Contingency

sub-TOTAL

BUDGET

47,150

47,150

47,150

141,450

94,300

377,200

Implementation Plan (2020 - 2024) 3. TIMING OF PLANNED ACTIVITIES FOR ENTIRE PROJECT PERIOD

			Y2020			Y2021			T	Y2022			Y2023		Y	2024
Action Plan	Description of Results	-			너				1			+				
	·	1	2	3	4	1	2	3 4	ر 4	بالد 1 2	3 4	ן ג 1 1	2	3 4	1	Q Q Q 2 3 4
DLI 1	Readiness								_			_				
1.1	Basic readiness	T	Г	П	П	П	П	T	T	Т	П	Т	П	Т	П	ТТ
	- Implementation Plan approved	1		T	П		T	T			П					\top
	- Procurement Manual approved	1		Г	П		T				П					\sqcap
	- Financial Management Manual approved										П					
1.2	Full readiness				Ц						Ш		Ш		Ш	
	- Functional website and advisory boards															
	- Organise project implementation meeting															
DLI 2	Development Impact															
DLI 2.1	Self assessment of development impact	T		I	П								П			
	Monitoring & Evaluation of project progress															
DLI 2.2	Independent external evaluation of impact	\prod														
	Conduct tracer studies	\perp		L						\perp			Ш			
DLI 3	Quantity of Students															
3.1 & 3.2	Advertise, shortlist, interview and admit students	T			П				T			T				
	- Organise orientation for newly admitted students	T	T							Т			П			П
	- Commence modular lectures for all students	T	T				T						П			
	- End modular lectures for all students															
	- Assign supervisors to admitted students	\perp														
	- Organise seminars for project proposals & reports	\perp			Ц								Ш		Ш	
	- Present students for defence and graduation	L			Ц						Ш		Ш			Ш
3.3	Organise short courses for students & faculty members		L		Ш		╝			L			Ш			
DLI 4	Quality of Education & Research															
4.1	Self/Gap assessment, National/Int'l accreditation	Ι														
	- Introduce new/review existing courses	I														
4.2	Conduct applied research in oil field chemicals															
	- Attend annual conferences		L													
	- Publish in national/international publication channels	╀														
1.0	- Attend project review workshop	┺							L	_	Ш	Ļ			Ш	╙
4.3	Complete Milestones 1, 2, 3 & 4		L		Ц	Ш				丄	Ш	\perp	Ш		Ш	
DLI 5	Relevance of Education & Research															
5.1	Organise Sectoral Advisory Board meeting												Ш			
	Organise International Advisory Board meeting	L							L			L	Ш		Ш	Ш
	File or commence patenting process															
5.2	Organise 1-month internship in a relevant industry	+	4					Ę								
5.3	Technology incubation & commercialisation process	丄		L	Ц	Ш						L			Ш	
DLI 6	Timeliness/Quality of Fiduciary Management															
6.1	Timely fiduciary reporting	L											Ш			
6.2	Functional oversight (internal audit unit)	1	\perp	$oxed{L}$		Ц	_			\perp	Ш		Ц		Ш	
6.3	Web transparency (Centre expenditures)	\downarrow	\perp	L		Ц				\perp	Ш		Ш		Ш	1
6.4	Quality of procurement (planning)	L	L	L	Ц	Ц					Ш		Ш		Ш	Ш
DLI 7	Institutional Impact															
	Initiate, review and endorse MoUs with partners	Ι					I									
7.1	Publish University-wide regional strategy	\prod	Γ	Г				floor	\int	$oldsymbol{ol}}}}}}}}}}}}}}}$	\prod					\prod
7.2	Foster open merit-based selection of VC and deans	\perp	I							$oldsymbol{\mathbb{I}}$	\prod	\int	П		\prod	Ш
7.3	Secure institutional Int'l Accreditation/ISO Certification	Ţ	Ĺ	Ĺ	Ц					Ţ			Ц	Щ	Ц	ot
7.4	Participate in PASET Benchmarking/Intervention Plan	Ţ	L		Ш					L	Ш		Ш		Ш	$\perp \downarrow$
7.5	Establish milestone on institutional impact						- 1		- 1	- 1	1 1	-1	1 1		1 1	11

4. IMPLEMENTATION ARRANGEMENTS

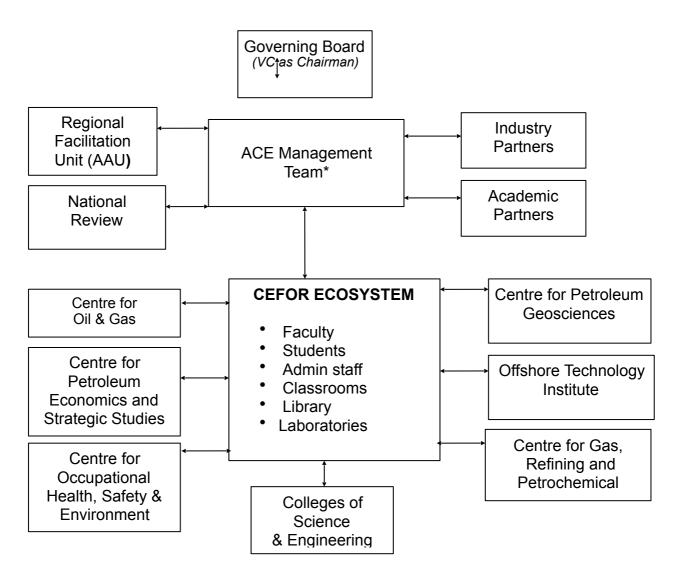
4.1 Guiding Policies, Rules and Regulations

Administrative leadership shall be given by the Centre Director who reports directly to the Vice Chancellor and works with other ACE management team members. The University has a Procurement Unit and the project shall have a dedicated Procurement Officer who shall further be trained on the World Bank procurement procedures. The financial management of CEFOR shall be handled by a dedicated Centre Finance Officer with the requisite working experience in financial management in an academic system. The Monitoring and Evaluation Officer shall ensure that the project is going on as contained in the implementation plan and recommend necessary amendments to better achieve the Key Performance Indicators (KPIs). Furthermore, there is an efficient operating procedures and management system for general and academic administrations, purchases and contract execution. There is also effective internal control mechanism for the day-to-day running of the Centre. These operating procedures have helped us deliver high quality services and prudently managed previous funds provided by TOTAL E&P Nig. Ltd (a multinational oil and gas firm operating in Nigeria) for the past 10 years. Generally, requisitions raised by Unit Heads in the University are channelled through the dedicated Finance Officers, to the Director of Internal Audit then, the Vice Chancellor's approval once the amount requested is beyond the normal approval limit of the requesting officer.

4.2 Governance Structures

The Research Advisory Board of the Institute of Petroleum Studies shall cover CEFOR on issues of research focus and the development of strategic research plan. This will ensure successful project implementation, especially, in teaching and research as well as the commercialisation of patents registered by the Centre. CEFOR shall have an Academic Board made up of all Lecturers in the programmes of the Centre. The Office of Research and Development Management as well as the Centre for Research Management, both in the Office of the Vice Chancellor, shall have oversight functions for the academic management of the Centre to ensure the level of autonomy necessary for timely service delivery. The Directorate of Quality Assurance and Quality Control as well as a very functional and effective Service Compact (SERVICOM) Unit of the University shall also drive quality service delivery for eventual International Standards Organisation (ISO) Certification of the Centre.

The academic programme of the ACE-CEFOR has been designed following global best practice and targeted at preparing students with the relevant capacity to conduct extensive and sustained research that shall lead to the publication of high quality papers in reputable international and local journals as well as innovations that are patentable with the appropriate Intellectual Property Rights. Specifically, faculties and students on the ACE-CEFOR project shall undertake six intensive modular taught courses in the following areas: Research Methods; ICT, Technical Report Writing and Presentation Skills; Entrepreneurship; Oil and Gas Industry Overview; Environmental Management and Pollution Control, and Drilling Fluid Technology and Oil Field Chemistry. In addition to the above intensive modular taught courses, they shall be made to participate in several regular conferences, seminars, and workshops to further develop their relevance in the field of Oil Field Chemicals and related disciplines. All the afore-listed intensive modular courses must be passed by every participating faculty and student as part of the requirements for continuation to conduct research leading to the award of both the master's and doctorate degrees in the various programs of the ACE-CEFOR.



^{*} **ACE Management Team:** Centre Leader; Deputy Centre Leader, M&E Officer; Finance Officer/Project Accountant; Procurement Officer; Auditor.

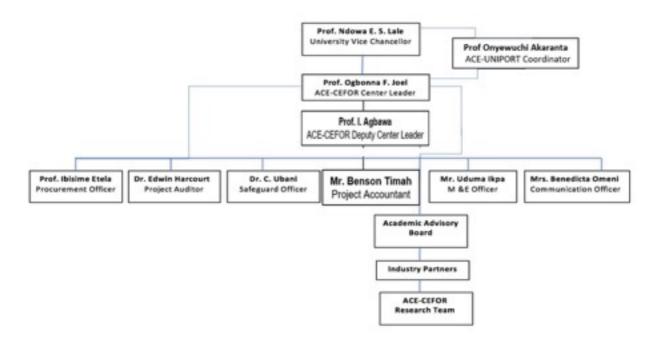


Figure 2: Organisation chart of Steering Committee members

4.3 Sectoral Advisory Board

Table 5: Sectoral Advisory Board

Name: PROF. G. A. CHUKWU							
Position/Title PRESIDENT/CEO	Company/Organization: TONCIA ENERGY						
Tel. #+2347039868103	Email: CHUKWU.TONCIA@GMAIL.COM						
Expertise: DRILLING AND WELL COM	PLETION						
Anticipated Contribution: MENTORSH	P, SUPERVISION AND PROVISION OF LAB FACILITY						
Name: ENGR. VINCENT NNADI (2)							
Position/Title EXECUTIVE GENERAL MANAGER	Company/Organization TOTAL EXPLORATORY & PRODUCTION NIGERIA LTD						
Tel. #+2348035551187	Email: vincent.nnadi@total.com						
Expertise: SUSTAINABLE DVELOPME	NT /HUMAN RESOURCES						
Anticipated Contribution: MENTORSHII	P/SCHOLARSHIP/EMPLOYMENT						
Name: DR. EDITH AKWEKE (3)							
Position/Title: MANg. DIRECTOR	Company/Organization ANSETT INTEGRATED SERVs. LTD						
Tel. #+2348037082625	Email: edit.akwaeke@ansettgroup.com						
Expertise: LABORATORY MANAGEM	ENT/ WELL EVALUATION						
Anticipated Contribution: MENTORSHII	P/LECTURING/LAB SERVICES						
Name: DR ANTHONY JOHN							
Position/Title: LAB. MANAGER	Company/Organization: HALLIBURTON ENERGY SERVs.						
Tel. # +2348036771615	Email: Anthony.John@halliburton.com						
Expertise: Lab Management/Fluid Spe	cialist						
Anticipated Contribution: Mentorship/Te	eaching/Co-Supervision						
Name; ENGR DR(MRS)G.C. AKUJOB	I- EMETUCHE						
Position/Title: GEN. MANAGER	Company/Organization: NNPC-PPMC, ELESHA ELEME						
Tel. #+ 2348185949269	Email: graceakujobi_emetuche@yahoo.com						
Expertise: PROCESS ENGINEERING							
Anticipated Contribution: MENTORSHII	P/TEACHING /SUPERVISION						
Name: DR JUDE AMAEFULE							
Position/Title: EXEC. DIRECTOR	Company/Organization: EMERALD ENERGY LTD						
Tel. #+2348033307557	Email; drjoa1@gmail.com						
Expertise: RESERVOIR MANAGEMEN	+						
Anticipated Contribution; MENTORSHII	P/TEACHING/EMPLOYMENT						
Name: PROF G. C. OFUNNE							
Position/Title; MANg. DIRECTOR	Company/Organization; FUGRO NIGERIA LTD						
Tel. #+2348022908426	Email: OFUNNE@HOTMAIL.COM						
Expertise: ENVIRONMENT AND POLLUTION CONTROL							
Anticipated Contribution: MENTORSHI	P/TEACHING /SUPERVISION						

4. Sustainability

Sustainability plan is necessitated by the ever-changing business/industry environment. The University of Port Harcourt is located in the oil and gas region of Nigeria, and will continue to enjoy the patronage of the oil and gas industry as long as fossil fuels remain the world's major source of energy.

Nigerian oil and gas industry is the largest in sub-Saharan Africa yet, its contribution to Gross Domestic Product (GDP) growth has been minimal. This is, largely, due to low in-country research and development activities for the oil and gas industry. The non-funding of research in this area has robbed the country of enormous opportunities ranging from job creation, knowledge generation to skills development. It is the aspiration of the Nigerian government to increase indigenous participation in the oil and gas industry, build local capacity, create linkages with other sectors of the national economy to boost industry contribution to the growth of National Gross Domestic Product. One of the ways to actualise this dream is to encourage and fund in-country researchers and universities on local raw materials development.

We possess good learning infrastructure and focus on research programs relevant to the industry. We also have a more or less autonomous operational identity required for efficient project implementation. The Centre, regularly, embarks on several national and international collaborations and thus, bringing together diverse cultures, academic programs, multidisciplinary team structure and technology applications. Engaging in viable public-private partnerships (PPPs) with relevant industry partners allows greater involvement of the industry and the relevant ministries/departments/agencies (MDAs) in our postgraduate (masters' and doctorate) programs with regard to curricula development/review and course delivery.

ACE-CEFOR has been structured to be self-sustaining at the end of the grant period based on sustainability plan involving funds from tuition, consultancy services, short courses, contract research, research grants, assistance from local and international collaborators and budgetary allocation from the government through the University Management. Details of the various sources of funds are as highlighted below:

(i) Research grants from grant-making agencies

To realise this, proposals are written in response to calls from research grant agencies in line with their requirements and research focus areas. In most cases, the graduate students who are involved in such projects benefit immensely and the revenue portfolios of the Centre are enhanced. Companies and organisations like the MacArthur Foundation, Nigerian Content Development Monitoring Board (NCDMB), Petroleum Training and Development Fund (PTDF) among others are major players in this area.

(ii) Funding from industry partners

This constitutes the bulk of funds from our externally generated funds. These partners are involved in building facilities, sponsorship of students, and paying honorarium to resource persons. The major contributors include NNPC/TEPNG JV, Emerald Energy Resources Limited and Nigeria LNG Limited, among others.

(iii) Charges from short courses, consultancy services and capacity building

Funds are also raised from consultancy services, capacity building training as well as from short courses. With the government drive for more participation of the local players and universities in human capital development, these opportunities shall be, fully, harnessed to form a substantial part of our externally generated fund portfolio.

(iv) Tuition fees from students and scholarships

Fees from students are also one of the sources of funds to support the research and development aspirations of the Centre. Raising enough funds through this avenue is a challenge, especially, for the graduate programs that the students are often not as much as we do have for undergraduates coupled with poor funding capabilities of most talented African students. And because of their poor financial capabilities, most of the students cannot afford to pay fees that can sustain a high-profile program. Some of the students get sponsorship and

Implementation Plan (2020 - 2024)

scholarships from organisations and companies like the Petroleum Training and Development Fund (PTDF), NCDMB and Total E & P Nigeria Limited.

(v) Endowment for professorial chairs

This source has contributed immensely towards research development and support of graduate students project. Here, companies with specific research needs commit fund and appoint a Professor to drive the research. In addition to providing fund, some of the companies provide laboratory facilities and equipment. Some of the companies that had offered these opportunities include Shell Petroleum Development Company (SPDC), Petroleum Training and Development Fund (PTDF), Nigerian LNG Ltd, Nigerian Content Development Monitoring Board (NCDMB) and Total Exploration Petroleum Nigerian Ltd. are among such companies.

5. International Scientific Advisory Board

Table 6: International Scientific Advisory Board

Name: PROF. ADIPALA EKWAMU			
Position/Title: EXECUTIVE SECRETARY	University/Institution: RUFORUM, MAKERERE UNIVERSITY, KAMPALA, UGANDA		
Tel. #: +256417713301	Email: e.adipala@ruforum.org		
Expertise: Plant Pathology			
Anticipated Contribution: Academic Curriculum Review			
Name: DR. RICHARD AMORIN			
Position/Title: PETROLEUM ENGINEERING	University/Institution: UNIVERSITY OF MINES & TECHNOLOGY (UMAT), TARKWA, GHANA		
Tel. #: +233243982467	Email: ramorin@umat.edu.gh		
Expertise: Drilling Engineering			
Anticipated Contribution: Academic Curriculum Review			
Name: DR. MOSES OSIRU			
Position/Title: RSIF-RCU MANAGER	University/Institution: INTERNATIONAL CENTER OF INSECT PHYSIOLOGY & ECOLOGY, NAIROBI, KENYA		
Tel. #: +254(20)8632000	Email: mosiru@icipe.org		
Expertise: Plant Pathology			
Anticipated Contribution: Academic Curriculum Review			
Name: PROF. BRUNO ZELI DIGBEH			
Position/Title: PROFESSOR	University/Institution: UNIVERSITÉ FÉLIX HOUPHOET BOIGNY, ABIDJAN, CÔTE D'IVOIRE		
Tel. #: +22541831616	Email: brunodigbehi@gmail.com		
Expertise: Marine Geology			
Anticipated Contribution: Academic C	curriculum Review		
Name: DR. DANIEL OYOO			
Position/Title: CHAIRMAN/GAS & PETROLEUM ENGINEER	University/Institution: KENYATTA UNIVERSITY, KENYA		
Tel. #: +254721942475	Email: danoyoo@hotmail.com		
Expertise: Chemical Engineering & Chemical Technology in Industrial Processes			
Anticipated Contribution: Academic C	curriculum Review		
Name: PROF. SUNNY IYUKE			
Position/Title: PROFESSOR	University/Institution: WITWATERSRAND UNIVERSITY, JOHANNESBURG, SOUTH AFRICA		
Tel. #: +27827578609	Email: sunny.iyuke@wits.ac.za		
Expertise: Chemical & Process Engir	neering		
Anticipated Contribution: Academic Curriculum Review			
Name: MR. FRANCIS FUSIER			
Position/Title: IFP REP. NIGERIA	University/Institution: IFP SCHOOL, PARIS, FRANCE		
Tel. #: +2348160394746	Email: francisfusier@ifptraining.com; francisfusier@gmail.com;		
Expertise: Petroleum Engineering			
Anticipated Contribution: Joint International Degree and Academic Curriculum Review			

Implementation Plan (2020 - 2024)

4.6 Institutional Impact

ACE-CEFOR in the past five years has impacted, positively, on the host institution, the University of Port Harcourt and it is expected to be better in subsequent years. Some of these impacts are described below:

1. Improved institutional governance based upon global best practices

The Centre governance is based upon global best practice. There are efficient operating procedures and management system for general and academic administration, purchases and contract execution at ACE-CEFOR. The Steering Committee and the Management Team for day-to-day running of the Centre are handled by competent staff. The Monitoring and Evaluation Officer ensures that the project is implemented as planned. The University has a functional Procurement Unit that oversees all procurement activities in the Centre in line with the approved standard operating procedures stipulated in the Public Procurement Act 2007 that established the Bureau of Public Procurement (BPP). In 2014 when ACE-CEFOR was established, the University did not have a procurement manual but, as at 2018, a procurement manual is in place with required software to track procurement transactions. All these enhanced management and governance processes by the Centre and has impacted on the host institution, University of Port Harcourt.

2. International standards for hiring faculty and university leadership

The hiring and selection process for the faculty members that work in ACE-CEFOR is transparent and based on competence and merit. In order to achieve the project development objectives of ACE-CEFOR, the Centre made provisions for faculty and administrative staff capacity building through training and re-training. The Centre has put in place, a strategic plan (in line with the overall University of Port Harcourt Strategic Plan) that will ensure the achievement of the overall objective of staff development without compromising quality and this no doubt has impacted on the quality of service delivery and efficient performance of the staff.

3. Institutional accreditation

Accreditation is a process in which the proficiency and credibility of an institution is determined through peer review. There are two types of accreditation, one is institutional accreditation, which means an entire school is accredited. That bestows a high level of credibility on a university as a whole. The second type of accreditation is of individual programmes within a school rather than the whole institution. Programme appraisers will look at faculty, curriculum, students, resources and administrative structure. It is worthy to note that before the award of the grant in ACE1, the World Bank undertook a thorough evaluation of the Institutional governance structure, capability and programs to be sure it has the proficiency and credibility to run the project. Moreover, the Centre received national accreditation from the National Universities Commission (NUC) for 12 of its post-graduate programmes. The Centre also carried out an international gap analysis and an on-site evaluation of its programme on Petroleum and Gas Engineering, which has also been granted international accreditation by HCÉRES (High Council for Evaluation of Research and Higher Education), France in September 2019.

4. Regionalisation of the institution

The mission of ACE-CEFOR is to provide international post-graduate programmes and applied multi-disciplinary research in Engineering and the Sciences for sustainable development of the oil and gas industry in Africa. Our vision is to become the leading Centre of Excellence in Oilfield Chemicals Studies and Research in Africa. The establishment of ACE-CEFOR as a Centre of Excellence for Oilfield Chemicals Research has become an avenue for foreign students' admission into graduate programmes of the University of Port Harcourt. A total of 70 new batch of PhD students were admitted in 2017, out of which about 15% of them were regional students majority of whom were attracted via the University's membership of RUFORUM (Regional Universities Forum for Capacity Building in Agriculture), Kampala, Uganda. The Centre has developed short courses with a regional focus that will attract participants from across Africa. ACE-CEFOR Impact Project as a Centre of Excellence is poised for more regional engagements and impacts within the project period and beyond. Regional recruitment strategy for faculty members is adopted by the Centre, which encourages opportunities for Sabbatical and Visiting-lecturer programmes from suitably qualified regional faculty members.

5. Management information systems of global standard employed in university operations

One of the biggest challenges, which faces all universities in Nigeria is inadequate infrastructure and information management system. ACE-CEFOR, in the last two years, has managed this challenge for the University of Port Harcourt, by:

- i. Upgrading the University's Central Instrument Laboratory;
- ii. Establishing and equipping an Advanced Research Laboratory for the Faculty of Science and Engineering to enhance Masters and PhDs research, and
- iii. Completing a 2-storey building which houses -
 - Language lab
 - ➤ E-library
 - Smart class/Conference rooms
 - Good learning environment
 - Video/e-Conferencing facilities
 - Full high-speed internet facilities

These have, no doubt, enhanced the entire University learning environment and Information Management Systems.

6. Polices and Practices for Institutional benchmarking through global mechanism CEFOR has an Academic Board made up of members appointed by the Vice Chancellor with the Director of the Centre as the Chairman. The Directorate of Quality Assurance and Quality Control as well as a very functional and effective SERVICOM Unit of the University also drives quality service delivery for eventual ISO Certification of the Centre. The quality assurance/ quality control mechanisms of ACE-CEFOR are in line with global best practice, ensuring that the right caliber of faculty and students are recruited. These processes have impacted on the outcome of accreditation and students quality. ACE-CEFOR offers a conducive learning environment with internet access and virtual library. Students use industry software, and multimedia projector for lecture, graduate within a target time and are industry-ready.

7. Institutional capacity to undertake regular tracer studies of graduates

The University graduate **tracer study** provides desirable information as to what is happening to our graduates when they join the world of work. Between 2003 and 2017, one of the six Centres that makes up ACE-CEFOR, the Institute of Petroleum Studies (IPS), graduated 290 IPS trained master's degree holders in Petroleum Engineering and Project Development. The number of companies, indigenous and foreign, that engage IPS trained operations-ready graduates has been on the increase since 2008. In 2008, twenty-two companies engaged IPS graduates in their establishments and by 2013 the number had risen to thirty-seven companies, which is an indication of the level of acceptance of IPS programmes. Presently, there is a direct relationship between the number of companies engaging IPS graduates and the number of companies that accept IPS students for internships. The major milestones of ACE-CEFOR among others include graduation of 37 of the 1st set of PhD students admitted in 2014, of which about 80% of them are gainfully employed.

No doubt, ACE- CEFOR impact project will continuously strengthen the University of Port Harcourt and act as a catalyst to proficiency and credibility of the whole Institution. The Centre has recorded landmark achievements till date.

The impact of the World Bank Centre of Excellence in the entire University of Port Harcourt is remarkable. The practice of multi-disciplinary research team became very effective through the collaborative effort of the Centre among the different disciplines and academics. The students in these Centres graduate within the stipulated minimum target period and in recent years this has become a culture in our graduate school.

The concept of shared services among the various departments and faculties has been introduced by the efforts of CEFOR. At the moment, we are equipping Central Engineering and Science laboratories respectively for graduate students and these no doubt will minimise duplication of efforts and help to optimise utilisation of laboratory equipment and personnel.

Implementation Plan (2020 - 2024)

There are remarkable landmark achievements of the Centre, through the effort of the Centre we now have a Central Engineering and Science laboratory.

As a support Centre for PhD students/research fellows at the various centres/faculties and collaborating African universities and industry partners, the Centre collaborates for the purpose of carrying out research in all aspects of oilfield chemicals/operations. In addition to the above, the Centre also provides support to the following specialised partnering/collaborating centres in the University of Port Harcourt:

Table 7: Overview of collaborating and partnering centres with programmes run

Sectors	Centres of Excellence	Post Graduate Programmes
Upstream	Petroleum Geosciences (Sponsor: MacArthur)	M.Sc./PhD in Petroleum Geosciences
	Oil & Gas Technology (Sponsor: NNPC/TEPNG JV)	 M.Sc. in Petroleum Engineering & Project Development PGD in Petroleum Technology
	Offshore Technology (Sponsor: Global Marine Ltd)	M.Sc. in Offshore EngineeringM.Sc. in Pipeline Engineering
Downstream	Gas, Refining & Petrochemicals	 M.Sc. in Petroleum Refining & Petrochemical Engineering
Corporate	Petroleum Economics, Policy & Strategic Studies (Sponsor: Emerald Energy Resources Ltd)	 M.Sc./PhD in Petroleum Economics, Policy & Strategy M.Sc./PhD in Energy Management & Policy
HSE	Occupational Health, Safety & Environment (HSE School). (Sponsor: Part sponsorship by Fugro Nig. Ltd	 M.Sc./PhD in Environmental Technology & Management M.Sc./PhD in Occupational Health & Safety
	Information & software development	 M.Sc. in ICT Systems & Software Engineering
	Continuing Education	Short CoursesWorkshop and seminarsProfessional Certification
	Faculty of Engineering and Science	 PhD in the various disciplines

4.7 Incentive Structures and Mechanisms

Adequate incentive structures have been put in place for staff involved at the lead and partner institutions as well as towards involvement of external stakeholders from the industry partners. Some of these incentives are sponsorship to conferences, workshops, training of involved staff, retirement for project related expenses such as transportation, return airfare, accommodation, and so on.

8. Roles and responsibilities of ACE team members

(Please fill the table below as well as prepare and attach as Annex 1. brief Terms of Reference (TOR) for each ACE team member and project financed support staff. Note that justification for not using existing university administrative and support staff is required. Having said that, it is still recommended to second or hire necessary support staff including a project coordinator to assist the project leadership with administration so center leadership can focus on the academic quality of the project).

Table 8 contains the roles and responsibilities of the ACE team members from the University of Port Harcourt on the ACE-CEFOR Renewal Impact Project.

Implementation Plan (2020 - 2024)

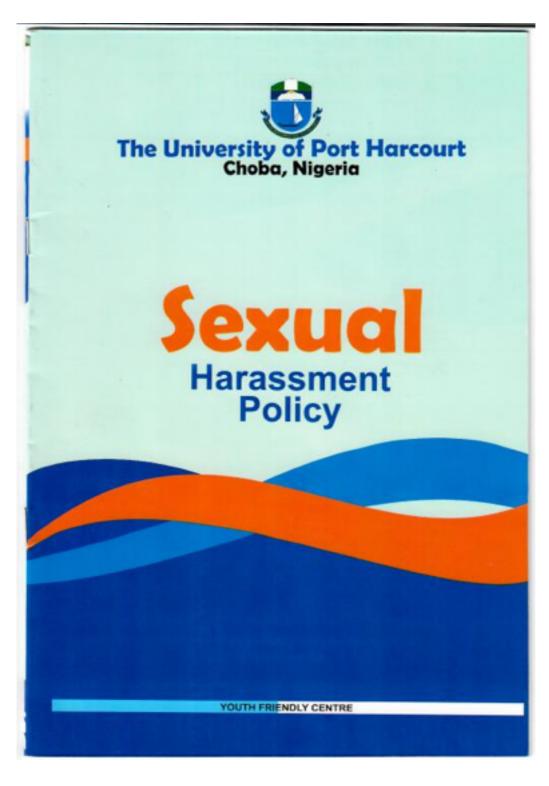
Table 8: Overview of core project team

Position	Position Qualification Responsibilities		
Centre Leader	PhD/Professor	Day-to-day running of Centre	
		Provide academic and administrative leadership	
		Training and education coordination	
		Responsible for partnership coordination	
		Responsible for research coordination	
Deputy Centre	PhD/Professor	 Drive the proper and timely implementation of all project 	
Leader		activities including all project related procurements.	
		Works closely with the Centre Leader to coordinate:	
		- Training and Education	
		Partnerships, andResearch	
ACE Project	PhD/Professor	Responsible for the planning, organization and strategic	
Coordinator	T TID/F TOTESSOI	management of the ACE Project	
M&E Officer	BA degree	Ensures that project implementation is in line with the ACE	
	27 1 0.09.00	Project provisions and the ACE-CEFOR project's Results	
		Framework.	
		 Responsible for preparing and submitting the periodic 	
		Monitoring and Evaluation report of the Centre, according to	
		the approved World Bank template.	
Head of ICT	BA degree	 Overseeing the infrastructure of technical operations at ACE- 	
		CEFOR Managing the Centre's IT ampleyees	
		 Managing the Centre's IT employees Tracking technology to achieve the Centre's goals 	
		Eliminating security risks and increasing user satisfaction	
		Maintaining operations and systems	
Auditor	PhD	Ensure that, there is high value for every dollar expended on	
		the ACE-CEFOR project	
		 Ensure that financial statements are in compliance with the 	
		ACE policy and shall be responsible for initial final	
		authorization for procurement as well as be involved in the	
		process of product verification and tagging after procurement Shall also verify all Eligible Expenditure Programs (EEPs) and	
		I Shall also verify all Eligible Experiolitice i Tograms (EET 3) and	
		work with the Internal Audit Committee in following up on all identified audit issues and recommendations	
Accountant	Master's	Ensure that all financial transactions of ACE-CEFOR are	
	degree	conducted in accordance with existing National Accounting	
		Standards of the Federal Republic of Nigeria.	
		 Ensure that proper financial records for the ACE-CEFOR are 	
		maintained and made available on a timely basis through the	
		financial reports at regular intervals and posted on the project	
		web page. • Submitting bi-annual Interim Financial Reports: Detailed	
		 Submitting bi-annual Interim Financial Reports; Detailed statement of sources and uses of funds for project activities; 	
		 Prepare, submit and publish of bank and reconciliation 	
		statements for the ACE-CEFOR account.	
Communication	BA degree	Responsible for communication and dissemination of project	
Officer		information including the ACE–CEFOR website management.	
Environmental	PhD	 Responsible for the Environmental Management and Social 	
and Social		Safeguards Plan of ACE-CEFOR.	
Safeguards			
Officer	DhD/Drofosss	• Francisco that the presumance of the fact the ACE OFFOR and the	
Procurement	PhD/Professor	Ensure that the procurement plan for the ACE-CEFOR project is based on poods assessment.	
and Property Management		is based on needs assessmentEnsure that there is value for money by sourcing for the right	
Officer		places to get the right quality of equipment, facilities, engaging	
		vendors, consultants and the likes for successful	
		implementation of the ACE-CEFOR project	
Drivers	O' Level	Transporting staff and students of the Centre	
		Carry out vehicle maintenance checks	
		 Deliver packages to stakeholders in a timely manner. 	
		 Pick up office purchases or other administrative needs. 	

4.9 Sexual Harassment Policy

The responsible officers for this policy are the Dean of Students Affairs, the Director, Quality assurance and Quality Control Unit of the University and the Deputy Centre Leader of the Centre.

(Insert the Center Sexual Harassment Policy and identify the responsible staff. Ensure that the policy is also disclosed on the Center website.)



Implementation Plan (2020 - 2024)

The University of Port Harcourt Sexual Harassment Policy

PREAMBLE

Sexual harassment such as unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature, is a common form of violence that can cause enduring psychological harm. Both women and men are targets of such behaviour though women and girls are the primary targets. This document is to aid the University to prevent, report and respond to sexual assault and sexual harassment. The University is committed to providing a citadel of learning where all may search for knowledge and wisdom free from sexual harassment. Sexual harassment is serious misconduct; very serious wrongdoing and improper behaviour which may lead to dismissal.

Sexual harassment may take the form of victimisation, a hostile environment that interferes with another's performance at work or in study or an alleged perpetrator influences or attempts to influence a person's educational or employment circumstances by coercing or attempting to coerce/force that person to engage in sexual activities; i.e an alleged perpetrator influences or attempts to influence: the admission of a student to the University; or to University residences; or the access of a student to training, organisational or funding opportunities; or interferes in grading or evaluation; by coercing or attempting to coerce a student to engage in sexual activities. The University will not tolerate sexual harassment.

This Policy is in line with global best practice in 21st century Higher Education Institutions. It aims to prevent, report and respond to sexual assault and sexual harassment in the entire University. It covers staff, students and those temporarily working in the University, such as contract staff, casual staff, contractors, and consultants.

- 1. Definitions
- 2. The role of managers
- 3. Communication
- 4. Education and training
- 5. Third parties
- 6. The role of the Reporting Office
- 7. Sexual Harassment Advisors
- 8. Advisory Panel
- 9. Response to a complaint
- 10. Informal procedures
- 11. Formal procedures
- 12. Final Formal procedures

1 DEFINITIONS

- 1.1 **Sexual harassment** is unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature that violates the rights of a person. In determining whether the unwelcomed conduct constitutes sexual harassment, consider the following factors:
- (a) The conduct was made as a term or condition of an individual's educational progress, living environment, employment, or participation in the University activities.
- (b) The conduct acceptance or refusal is used as the basis or factor in decisions affecting the victim's education, employment, living environment, or participation in the University activities.
- (c) The conduct impacts the individual's academic or employment

Implementation Plan (2020 - 2024)

performance or creates an intimidating, hostile or offensive environment for that individual's work, education, living environment, or participation in the University community.

- 1.2 'Alleged perpetrator' means a person alleged to have committed an act of sexual harassment;
- 1.3 **'Complainant'** means a person: who lodges a complaint under this Policy or against whom an act or acts of sexual harassment as defined in the Policy has or have been allegedly perpetrated;
- 1.4 **'Case Officer'** means the person assigned to present the University's case in formal internal disciplinary proceedings, who may also be the person assigned to investigate the matter;
- 1.5 'Quality Assurance and Quality Control/SERVICOM Unit' means the complaints and redress unit of the University;
- 1.6 **'Confidentiality'** means ensuring that information is accessible only to those authorised to have access to it;
- 1.7 **'Employee disciplinary procedure'** means the disciplinary procedure that applies to a category of staff;
- 1.8 'Employee' means an employee of the University
- 1.9 **'Manager'** means any employee of the University with managerial, supervisory or warden's responsibilities;
- 1.10 **'RO'** means the Reporting Office, as may be designated by the Vice-Chancellor from time to time;
- 1.11 **'Unique Student handbook'** means the rules on the conduct of students given to the students at the beginning of each session;
- 1.12 **"Security Unit"** means the security unit of the University
- 1.13 'NPF' means Nigerian Police Force;
- 1.14 **Unwelcome sexual** conduct includes physical, verbal and non-verbal conduct/behaviour. Such conduct/behaviour may be direct or indirect through phones and android devices or images.
- 1.14.1 **Unwelcome physical conduct** ranges from touching to sexual assault and rape;
- 1.14.2 **Unwelcome verbal conduct** includes insinuations or suggestions of a sexual nature, sexual advances, sexual threats, sexual comments, sex-related jokes/insults, inappropriate enquiries about a person's sex life, graphic comments about a person's body, whistling of a sexual nature and the exchange of sexually explicit material by electronic means or otherwise.
- 1.14.3 **Unwelcome non-verbal conduct** includes gestures, indecent exposure and the display or delivery of sexually explicit images by electronic or other means.
- 1.15 'SHA' means Sexual Harassment Adviser;
- **1.16 'Student'** means a registered student of the University.

Implementation Plan (2020 - 2024)

1.17 'University' means the University of Port Harcourt.

2. THE ROLE OF MANAGERS

- 2.1. Every manager shall take all reasonable steps to create and uphold a setting that is free from sexual harassment. In this regard, managers should:
- (a) exhibit leadership by learning, knowing and understanding the terms of this Policy, and assume responsibility for implementing the Policy;
- (b) attend training and educational sessions on this Policy as offered by the RO;
- (c) communicate the Policy to all employees, students and third parties in their respective areas of responsibility;
- (d) ensure that all new students, staff, and third parties are informed about the Policy and given the opportunity to discuss its implications.
- 2.2 Every Manager shall take the appropriate action when instances of sexual harassment occur and act as per the reporting and disciplinary processes laid down in this Policy. In this regard, managers are to:
- (a) treat all complaints with utmost confidentiality;
- (b) treat all concerned with utmost dignity and respect;
- (c) refer all complaints to the RO;
- (d) report to the RO when conduct in breach of this Policy is observed, and no complaint is lodged, and
- (e) take steps as appropriate; in consultation with the RO to prevent sexual harassment from occurring.

3. COMMUNICATION

- 3.1 The University shall take all necessary steps to communicate this Policy to all students, employees, and third parties on a regular basis: at the yearly orientation programs for year one students, statutory student union meetings, university congregation meeting. Printed copies of this Policy shall be distributed to all staff and students to raise awareness about the need to prevent and report sexual harassment.
- 3.2 The University shall make this Policy available on its website.
- 3.3 The Vice-Chancellor shall ensure that 3.1 and 3.2 occur.
- 3.4 The Deans shall:
- (a) communicate regularly by oral and written means the seriousness of the issue and the existence of this Policy to students, employees and third parties within their Faculties;
- (b) communicate regularly with Heads of Departments (HODs) and all other managers/stakeholders in the Faculty concerning their responsibilities in the effective implementation of this Policy.
- 3.5 The Dean of Student Affairs (DSA) shall:
- (a) communicate by written and oral means the existence of this Policy and its seriousness to students, employees, and third parties within the campus residences of the University;
- (b) communicate in writing and via meetings the contents of this Policy to the various Students' Unions.
- 3.6 The RO shall:
- (a) provide the Information, Publication and Public Relations IPPR unit with

Implementation Plan (2020 - 2024)

information that enables the University community be regularly informed about the implementation of this Policy;

- (b) send regular e-mail to all employees, students and third parties at least once a session to give information about this Policy, and
- (c) report annually to the Vice-Chancellor the status and success of this Policy.

4. EDUCATION AND TRAINING

- 4.1 Regular continuing education and training are imperative to guarantee students, employees and third parties are conversant with the contents of this Policy in preventing workplace harassment and implement it to respond, report and prevent sexual harassment.
- 4.2 Within six months of the adoption of this Policy, all existing staff of the RO shall be trained appropriately.
- 4.3 Within four months of the adoption of this Policy, the RO shall appoint and train SHAs. This training shall be repeated for new SHAs and new members of the staff of the RO within the first four months of each new calendar year.
- 4.4 All SHAs shall attend update training sessions at least on an annual basis.
- 4.5 Within six months of the adoption of this Policy, the RO shall present workshops on this Policy for the principal officers of the University, heads of academic departments, staff in the Quality Assurance and Quality Control/SERVICOM Unit, and Campus Security Unit. Staff representative bodies and the SUG shall be entitled to nominate representatives to attend workshops offered by the RO. The RO shall repeat the programme workshops at least every year. The RO shall integrate this Policy into staff induction and student orientation programmes.

5 THIRD PARTIES

The University intends that this and related policies be upheld and respected by all who work at, or visit, the University or who take part in the University's activities at any location. Visitors to the University thus agree to abide by the rules and conditions for students and staff. Such an visitors or consultants or sundry will be deemed to have consented to be subject to the University's disciplinary jurisdiction.

6 THE ROLE OF THE REPORTING OFFICE

- 6.1 The RO's shall provide a comprehensive sexual harassment response for the University. This response will include the provision of supportive and protective measures to the complainant, whether or not disciplinary proceedings are instituted.
- 6.2 Supportive measures may include, but are not limited to:
- (a) crisis counselling;
- (b) emergency medical services, para-legal advice and other relevant services:
- (c) measures to mitigate the impact of sexual harassment or the reporting thereof upon the complainant.
- 6.3 Protective measures may include, but are not limited to:
- (a) no-contact orders, where appropriate;
- (b) change of University student residence, where appropriate;

- (c) change of academic classes and academic concessions, where appropriate;
- (d) special leave (staff) or leave of absence (students), where appropriate.
- 6.4 While the primary aim of this Policy is to assist complainants who allege sexual harassment, an alleged perpetrator may at any stage approach the RO for advice on the application and interpretation of this Policy. In such instances the RO shall:
- (a) provide the alleged perpetrator with a copy of this Policy and of the University's disciplinary rules;
- (b) advise the alleged perpetrator of her/his right to obtain legal representation and of the availability of counselling;
- (c) advise the alleged perpetrator that the University may choose to follow the University disciplinary rules even if the complainant does not wish to do so;
- (d) explain to the alleged perpetrator the protective measures available to the complainant.

7. SEXUAL HARASSMENT ADVISORS

- 7.1 The RO shall appoint and train SHAs, drawn from employees of the University,
- 7.2 A SHA shall have the following responsibilities:
- (a) to receive complaints of sexual harassment from the RO;
- (b) in consultation with the Case Officer, to assist, support, consult and liaise with complainants, alleged perpetrators and those initiating complaints into sexual harassment;
- (c) to provide reports and records to the RO on all referred cases;
- (d) to represent the best interests of a complainant, or alleged perpetrator in formal communications with the RO where such representation is required;
- (e) to liaise with the case officer with regards responsibilities that may arise from disciplinary hearings;
- (f) to support the educational work of the RO where practical and reasonable.
- 7.3 The SHAs should, as a group, be diverse in terms of gender, qualifications and background.
- 7.4 While a complainant will be entitled to ask for another SHA to be assigned to his or her case; every effort should be made to ensure that the same SHA deals with a case all through.
- 7.5 The RO shall:
- (a) provide general support and guidance to the SHAs;
- (b) monitor cases;
- (c) ensure that the SHAs are suitably trained.

8 ADVISORY PANEL

8.1 For any report of sexual harassment made under this Policy, or in general; the RO may appoint an Advisory Panel to assist the RO with information,

suggestions and expertise.

- 8.2 An Advisory Panel may consist of the following persons:
- (a) the SHA representing a complainant or victim;
- (b) the Case Officer assigned to the complainant or victim;
- (c) a representative of the Dean of Student Affairs, if the complainant or alleged perpetrator is a student;
- (d) a representative of the Deputy Vice-Chancellor (Administration), if the complainant or alleged perpetrator is a staff member;
- (e) a person, not necessarily a staff member of the University, with expert knowledge in the field.

9 RESPONSE TO A COMPLAINT

- 9.1 Complaints of sexual harassment must be brought to the attention of the RO as soon as is reasonably possible.
- 9.2 If a complaint is brought to the attention of a manager, the manager shall notify the RO immediately.
- 9.3 Sexual harassment may be brought to the attention of the RO by the complainant or any other person aware of the sexual harassment. However, if the incident is of a serious nature, the complainant is encouraged to inform the RO in person.
- 9.4 Any complaint of sexual harassment will be recorded in writing by the RO and will be assigned to a case officer. The case officer will manage the complaint.
- 9.5 The RO will also assign an appropriate and available SHA to the case.
- 9.6 The steps to be taken by the case officer on receipt of a complaint should include but are not limited to, the following:
- (a) advise the complainant that there are formal and informal procedures which can be followed;
- (b) explain the formal and informal procedures to the complainant;
- (c) advise the complainant that he/she may choose which procedure should be followed by the University;
- (d) advise the complainant that the SHA assisting him or her may not be called as a witness during any formal procedure;
- (e) reassure the complainant that she or he will not face any adverse consequences in choosing to follow either the formal or informal procedure;
- (f) advise the complainant that he or she is not bound by the outcome of the informal procedure and will have the right to appeal directly to the VC within ten working days of the conclusion of that process;
- (g) advise the complainant that the matter will be dealt with confidentially;
- (h) if applicable, advise the complainant that no negative inference on his/her credibility will follow as a result of late reporting;
- (i) provide the complainant with information about counselling available as

Implementation Plan (2020 - 2024)

well as information on how to access independent counselling services;

- (j) in appropriate circumstances, advise the complainant of her or his right to refer the matter to the NPF and obtain further legal advice outside the University.
- 9.7 If a complainant, after consultation with the NPF, does not wish to pursue the matter, and the complaint is judged by the RO to be of a serious nature, the RO must refer the matter to an Advisory Panel. The RO, in consultation with an Advisory Panel, shall consider all relevant information, including but not limited to the following:
- (a) the risk to other persons in the University;
- (b) the severity of the sexual harassment;
- (c) the history of the alleged perpetrator with regard to previous cases and complaints of sexual harassment.
- 9.8 If it appears to the RO and the Advisory Panel that there is a significant risk of harm to other persons, they may advise the Case Officer to follow a formal procedure, irrespective of the wishes of the complainant. In such an event the complainant must be advised accordingly and the RO, in consultation with the Advisory Panel, must prepare a written recommendation to the Vice-Chancellor. The recommendation shall include (but not be limited to) the following:
- (a) a description of the alleged sexual harassment or assault;
- (b) the complainant's reasons for his/her unwillingness to pursue the matter further or to be called as a witness;
- (c) compelling reasons in support of a formal procedure.

10 INFORMAL PROCEDURES

- 10.1 An informal procedure is a process, managed by the RO, in which relationships between a complainant and alleged perpetrator(s) are explored with the consent of both, the aim of which is the resolution of a complaint in a manner that is satisfactory to all complainant and alleged perpetrator(s).
- 10.2 The complainant has the right to pursue formal proceedings after the conclusion of informal proceedings. The choice to pursue informal proceedings shall not in any way diminish the force of the original complaint.
- 10.3 The alleged perpetrator has the right to refuse participation in informal proceedings and may exercise this right during any stage of the informal process. No negative inference shall be drawn from a refusal to consider, participate or withdraw from the informal process.
- 10.4 An informal procedure may be followed by a formal procedure if the RO in consultation with an Advisory Panel believes that there are compelling reasons for this as specified in paragraph 9.
- 10.5 In an informal procedure, only the following information is recorded:
- (a) the fact that the informal procedure took place;
- (b) the names of the participants;
- (c) the date, time and location of the alleged incident;
- (d) the outcome of the informal procedure.

Implementation Plan (2020 - 2024)

- 10.6 Informal proceedings require the written consent of both the complainant and the alleged perpetrator, and
- (a) the availability and implications of informal proceedings shall be explained to the complainant by the appointed SHA, before such proceedings;
- (b) with the consent of the complainant preparatory interviews with the alleged perpetrator may be held in the absence of the complainant and with any other person or persons that may provide information to assist with the informal process;
- (c) the structure, procedure and facilitation of any informal procedure will be agreed upon beforehand by the case officer, complainant alleged perpetrator and SHA.
- 10.7 The informal procedure may include
- (a) an approach to the alleged perpetrator with or without revealing the identity of the complainant (depending on the choice of the complainant) with information that certain forms of conduct constitute sexual harassment:
- (b) a discussion where the objective is to give the alleged perpetrator an opportunity to apologise. The case officer and SHA will facilitate the terms, conditions and acceptance of such an apology;
- (c) the presentation of the case in confidence to a group of not more than four persons (including the case facilitator), to consider suggestions and to make recommendations that may achieve a resolution based on an agreement between the alleged perpetrator and the complainant. The choice of participants in the discussion will be at the discretion of the case officer in consultation with the SHA.
- 10.8 Every endeavour must be made to conclude the informal procedure within fourteen days of the incident being reported to the RO.
- 10.9 Strict confidentiality regarding the process, participants and report will be maintained throughout this process.
- 10.10 No part of the informal procedure may be used as evidence in a subsequent hearing following the outcome of this process.

11 FORMAL PROCEDURES

- 11.1 A complainant may choose to initiate formal proceedings, either with or without first following an informal procedure. The purpose of formal proceedings is to test the complainant's allegations through the disciplinary process.
- 11.2 If a complainant, following an informal procedure that does not result in a mutually acceptable outcome, does not wish to follow a formal procedure, the case officer will establish whether the complainant requires any further advice or support as contemplated in (the section dealing with the RO).
- 11.3 If the complainant wishes to proceed with a formal procedure, he or she shall advise the case officer of this, and prepare and sign a written statement providing full particulars of the alleged sexual harassment.
- 11.4 The formal processes for the presentation of the complainant's case within University Disciplinary Processes for staff and for students will be initiated through the RO.

12 FINAL FORMAL PROCEDURES

12.1 Students

Implementation Plan (2020 - 2024)

Where the formal procedure is to be followed, the RO will report the matter to the Vice-Chancellor and the legal team. The Vice-Chancellor mandates the case officer appointed to present the case to Court as required. The Powers of the committee is now extended to permit University Student Disciplinary committee to sanction as required.

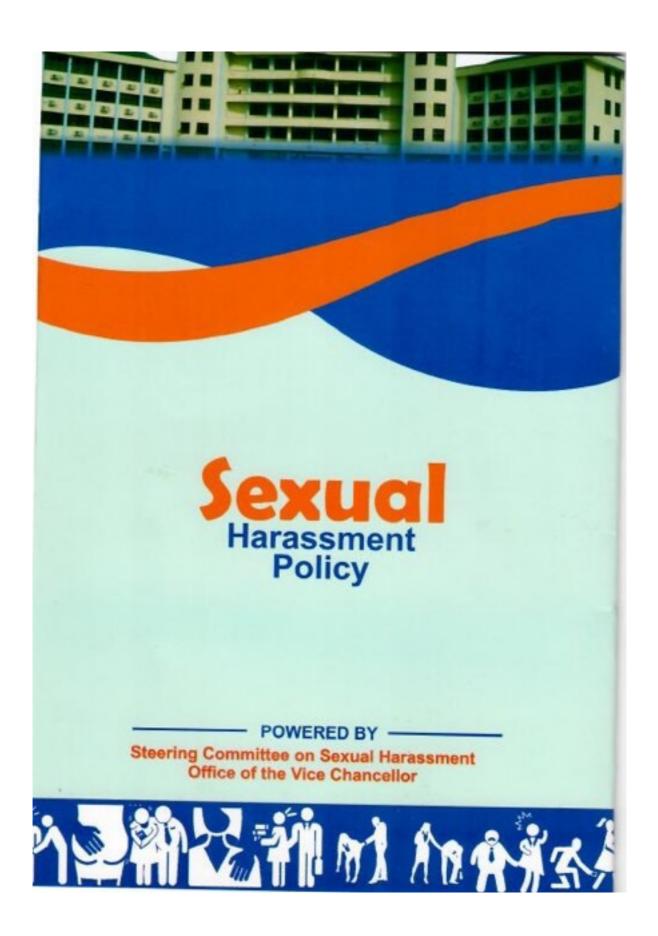
12.2 Staff

Where the formal procedure is to be followed, the existing approved disciplinary procedures for staff is followed. The RO must be contacted before instituting disciplinary action for sexual harassment. The RO shall assist as required. The disciplinary committee shall be trained to effectively handle sexual harassment matters.

12.3 Employees or agents of contracted-in Third parties

Where the formal procedure is to be followed, the disciplinary procedures agreed between the University and the contracting-in third party will be used.

30 March 2018



Implementation Plan (2020 - 2024)

4.10 Environment and Social Safeguards

The responsible officer for this policy is the Safeguards Officer of the Centre.



ACE in Oil Field Chemicals Research

Institute of Petroleum Studies

University of Port Harcourt



ENVIRONMENTAL MANAGEMENT PLAN

PART A: INSTITUTI EXCELLENCE PROJ		MINISTRATIVE FOR THE CEFOR	AFRICA CENT	ERS OF								
Country	NIGERIA											
Project title		ENTRE OF EXCELLENCE I	N OIL FIELD CH	IEMICALS								
Project title	RESEARCH		N OIL PIELD CI	IEMICALS								
Scope of project and		UALITY EDUCATION AT	GRADUATE LE	VEL, PROFFER								
activity		TO DEVELOPMENTAL CHA										
		IMPROVE PATNERSHIP B		STRY-UNIV AND								
		OTHER REGIONAL ACADEMIC INSTITUTIONS										
Institutional arrangements	WB Andreas	WB Project Management Local Counterpart and/or Recipier Andreas PROF, O.F. JOEL PROF, O. AKARANTA										
(Name and contacts)	Blom	PROF. O.F. JOEL	PROF. C	. AKAKANIA								
(Name and contacts)	Diolii											
Implementation arrangements	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate	Contactor								
(Name and contacts)	Supervision	Supervision	Supervision									
SITE DESCRIPTION Name of site		OF PETROLEUM STUDII	e (TBC) LINIDO	DT								
Describe site location		ROAD, CHOBA, PORT-		ite Map [x]Y [] N								
Describe site location	HARCOURT		Attachment 1: 5	ne map [x]1 [] N								
Who owns the land?		Y OF PORT HARCOURT										
Geographic	LATITUDE;											
description	Longitude:	6.9158820										
	Elevation:	13.99m										
LEGISLATION												
Identify national &		GOVERNMENT PROPERT		ATE FOR								
local legislation &	QUALITY E	DUCATION AND RESEAR	RCH									
permits that apply to												
project activity	TION											
PUBLIC CONSULTA		CABLE COVERED BY CO	WEDNMENT	ECICI ATION								
Identify when / where the public	NOT APPLI	CABLE, COVERED BY GO	VERNMENT L	EGISLATION								
consultation process												
took place												
INSTITUTIONAL CA	PACITY BUI	LDING										
Will there be any		if Yes, Attachment 2 include	s the capacity buil	ding program								
capacity building?	.,											

Implementation Plan (2020 - 2024)

PART B: E	NVI	RONMENTAL /SOCIAL SCREENING		
Will the	Ac	ctivity and potential issues and/or impacts	Status	Additional references
site activity include/ involve any of the following	1.	Building rehabilitation Site specific vehicular traffic Increase in dust and noise from demolition and/or construction Construction waste	[] Yes [X] No	See Section B below
potential issues and/or impacts:	2.	New construction Excavation impacts and soil erosion Increase sediment loads in receiving waters Site specific vehicular traffic Increase in dust and noise from demolition and/or construction Construction waste	[] Yes [X] No	See Section B below
	3.	Individual wastewater treatment system Effluent and / or discharges into receiving waters	[]Yes [X]No	See Section C below
	4.	Historic building(s) and districts Risk of damage to known/unknown historical or archaeological sites	[] Yes [X] No	See Section D below
	5.	Acquisition of land	[]Yes [X]No	See Section E below
	6.	Hazardous or toxic materials Removal and disposal of toxic and/or hazardous demolition and / or construction waste Storage of machine oils and lubricants	[]Yes [X]No	See Section F below
	7.	Impacts on forests and/or protected areas	[]Yes [X]No	See Section G below
	8.	Handling / management of medical waste Clinical waste, sharps, pharmaceutical products (cytoxic and hazardous chemical waste), radioactive waste, organic domestic waste, non-organic domestic waste On site or off-site disposal of medical waste	[]Yes [X]No	See Section H below
	9.	Traffic and Pedestrian Safety Site specific vehicular traffic Site is in a populated area	[]Yes [X]No	See Section I below

Implementation Plan (2020 - 2024)

5. PERFORMANCE MONITORING

Table 9: ACE-CEFOR disbursement linked budget distribution for 2020 - 2024

Disburseme nt Linked Indicator	Action to be Completed by ACE-CEFOR from 2019 - 2023	Amount (USD) of the Financing Allocated Per DLI (expressed in Special Drawing Rights (SDR))	Amount (USD) Allocated per DLR for the Disbursement Calculation (expressed in SDR)
DLI#1: Readiness (Initial Approval \$0)	DLR#1.1 (1no Basic readiness) DLR#1.2 (1no Full readiness)	\$0	\$0 \$0
DLI#2: Development Impact (Initial Approval \$200,000)	DLR#2.1 (4nos Self assessment of development impact by year 2) - tracers studies - Employers' ratings - Graduates employability DLR#2.2 (4nos Independent external evaluation of development impact by year 4) - Relevance and impact of research on society - Progress on DLIs - SAB annual report - Interviews with Centre graduates and sectoral stakeholders	\$200,000	\$100,000 \$100,000
DLI#3: Quantity of Students (Initial Approval \$1,003,000)	DLR#3.1 (56 PhD students) - 39 National: 27 males; 12 females - 17 Regional: 12 males; 5 females DLR#3.2 (80 masters students) - 56 National: 39 males; 17 females - 24 Regional: 17 males; 7 females DLR#3.3 (220 short course students) - 154 National: 107 males; 47 females - 66 Regional: 46 males; 20 females	\$994,600	\$420,000 \$228,100 \$120,500 \$103,000 \$66,500 \$56,800

Table 9: ACE-CEFOR disbursement linked budget distribution for 2020 - 2024

Disburseme nt Linked Indicator	Action to be Completed by ACE-CEFOR from 2019 - 2023	Amount (USD) of the Financing Allocated Per DLI (expressed in Special Drawing Rights (SDR))	Amount (USD) Allocated per DLR for the Disbursement Calculation (expressed in SDR)
	DLR#4.1 (Accreditation/Courses developed) - 1no National Accreditation - 1no Self/Gap assessment - 1no International Accreditation - 2nos New/Reviewed courses		\$100,000 \$100,000 \$300,000 \$100,000
DLI#4: Quality of Education & Research (Initial Approval \$950,000)	DLR#4.2 (50nos Research publications) - 35 Published papers with nationals - 15 Published papers with regionals DLR#4.3 (Infrastructure improvement) - Milestone 1: Plan approved and procurement process completed - Milestone 2: Complete office extension, canteen, externals, fence - Milestone 3: Purchase office and laboratory equipment and facilities - Milestone 4: Install and commission office and laboratory equipment and facilities	\$1,475,000	\$350,000 \$225,000 \$75,000 \$75,000 \$75,000 \$75,000
DLI#5: Relevance of Education and Research (Initial approval \$1,602,000)	DLR#5.1 (Externally generated revenue) - \$400,000 regional or private sector - \$572,000 other national sectors DLR#5.2 (116nos outreaches/internships) - 91 National: 64 males; 27 females - 39 Regional: 27 males; 12 females DLR#5.3 (Number of new entrepreneurship, innovation, start-up companies and commercialisation support programs)	\$1,621,000	\$800,000 \$572,000 \$91,000 \$58,500 \$100,000
DLI#6: Timeliness/ Quality of Fiduciary Management (Initial Approval \$270,000)	DLR#6.1 (5nos Timely fiduciary reporting) DLR#6.2 (4nos Functional oversight - Internal Audit Unit) DLR#6.3 (5nos Web transparency - Centre expenditures) DLR#6.4 (4nos Quality of procurement - Planning)	\$270,000	\$75,000 \$60,000 \$75,000 \$60,000

Table 9: ACE-CEFOR disbursement linked budget distribution for 2020 - 2024

Disburseme nt Linked Indicator	Action to be Completed by ACE-CEFOR from 2019 - 2023	Amount (USD) of the Financing Allocated Per DLI (expressed in Special Drawing Rights (SDR))	Amount (USD) Allocated per DLR for the Disbursement Calculation (expressed in SDR)
	DLR#7.1 (1no UniPort regional strategy) DLR#7.2 (Merit-based leadership selection) - 1no Merit-based selection of VC - 1no Merit-based selection of deans		\$100,000 \$200,000 \$50,000
DLI#7: Institutional Impact (Initial Approval	DLR#7.3 (International accreditation) - 1no Gap assessment/Self evaluation - 1no Institutional International Accreditation/ISO Certification DLR#7.4 (1no PASET benchmarking initiative	\$975,000	\$75,000 \$200,000
\$975,000)	and submit intervention plan) DLR#7.5 (1no Milestone on institutional impact)		\$50,000 \$100,000
	DLR#7.6 (2nos ICT services for innovation in teaching and research)		\$200,000

Implementation Plan (2020 - 2024)

6. BUDGET OVERVIEW FOR ENTIRE PROJECT PERIOD

Table 10: Indicative budget from 2020 to 2024 with split between partners

		202	0 - 2024 Es	timated Co	sts in (US	(\$)	
Expenditure Category	YR 1 2020	YR 2021	YR 3 2022	YR 4 2023	YR 5 2024	Total Yr 1-5	% of total
A: Budget by Activity Plan							
Action Plan 1: (Readiness)	0	0	0	0	0	0	0.0
Action Plan 2: (Development Impact)	0	100,000	0	100,000	0	200,000	3.6
Action Plan 3: (Quantity of Students)	142,500	196,000	206,500	224,600	225,000	994,600	18.0
Action Plan 4: (Quality of Education & Research)	265,000	815,000	115,000	165,000	115,000	1,475,000	26.6
Action Plan 5: (Relevance of Education & Research)	161,500	284,500	434,000	384,500	357,000	1,621,500	29.3
Action Plan 6: (Timeliness/ Quality of Fiduciary Management)	45,000	60,000	45,000	60,000	60,000	270,000	4.9
Action Plan 7: (Institutional Impact)	100,000	400,000	275,000	200,000	0	975,000	17.6
TOTAL	714,000	1,855,500	1,075,500	1,134,100	757,000	5,536,100	100.0
% of total	12.9	33.5	19.4	20.5	13.7	100.0	
B: Budget by source of funding	ng						
Other sources (not WB)	69,142	179,681	104,148	109,823	73,306	536,100	
From World Bank (WB)	644,858	1,675,819	971,352	1,024,277	683,694	5,000,000	
Total Budgeted for All Partners	47,300	70,100	81,400	91,700	86,700	377,200	
C: Budget by partners							
University of Port Harcourt, Nigeria (UniPort)	666,700	1,785,400	994,100	1,042,400	670,300	5,158,900	93.2
University of Lome, Togo	5,913	8,763	10,175	11,463	10,838	47,150	0.9
University of Abomey-Calavi, Benin Republic	5,913	8,763	10,175	11,463	10,838	47,150	0.9
University of Mines and Technology, Tarkwa, Ghana	5,913	8,763	10,175	11,463	10,838	47,150	0.9
University of Witwatersrand, Johannesburg, South Africa	17,738	26,288	30,525	34,388	32,513	141,450	2.6
Industry Partner: FUGRO Nig. Ltd.; Keedak Nig. Ltd.; Ansett Groups; LASER Engineering Nig. Ltd. POCEMA Total E & P Nig. Ltd.	11,825	17,525	20,350	22,925	21,675	94,300	1.7
TOTAL	714,000	1,855,500	1,075,500	1,134,100	757,000	5,536,100	100.0

Implementation Plan (2020 - 2024)

7. DETAILED ACTIVITY SHEETS (one for each activity)

Action Plan 1: Readiness Timeframe: 01/01/2020 to 31/03/2020; 2021-2024 Activity: 1.1 Basic readiness & 1.2 Full readiness

Sub-Activity Tasks: Secure approval

RESULT		ap Of rej Pro Fu Stu	Implementation Plan, Procurement and Financial Management Manuals approved; Official designation of core ACE-FOR team members; Non-staff student representative designated; Project Management Certification by Centre Leader; Functional website (www.aceuniport.org); Students handbook uploaded; Sectoral Advisory Board constituted										
ACTIVIT	Y	stu Ide Ens Up	Identify and appoint qualified University of Port Harcourt faculty, staff and non-staff student representative to constitute core team members; Identify and attend an approved Project Management Certification centre; Ensure that the Centre website (www.aceuniport.org) is updated and functional; Upload students handbook on Centre website; Engage Statutory Advisory Board to endorse Implementation Plan										
OUTPUT			ACE-CEFOR achieve basic readiness and full readiness; Implementation Plan, Procurement Manual and Financial Management Manual approved;										
OUTPUT INDICATOR Roles and responsibilities in the Implementation Plan; Minutes of inauguration proceedings and minutes of meetings; Number of core team members who attend Project Management course; Relevant approved documents uploaded on Centre website SOURCE OF VERIFICATION Nomination memoranda/email; Minutes of meetings; Copy of training certificate; Copies of correspondence/email; Visit ACE-CEFOR website										·			
IMPLEME MILESTO	ENTATION ONES						ering Com						
PROCUR	EMENT	Ens	sure rig	ht candi	dates ar	e recruite	ed						
	SIBILITY FOR ENTATION	Cei	ntre Le	ader, Un	iversity	Managem	ent, ICT O	fficer					
DURATIO 3 month				ommence 01/01/20				Complet 31/03/2					
	CONSTITUEN				t) PA	RTICIPANT	S: Unive	sity & Ind	ustry p	artners			
ASSUMP	TIONS	Inaugur	ated C	ommitte	e memb	ers remai	n committ	ed to the	ACE-CE	FOR pr	oject		
FINANCI	AL IMPLICATIO	NS	Costs	for statio	onery; l	ogistics fo	r inaugura	tion / me	etings				
Budget l	Line Analysis			1 st Qtr	2 nd Qt	3 rd Qtı	4 th Qtr	2021	2022	2023	2024	Total	
1	Stationery a	nd logisti	cs	500	50	0 50	500	2000	2000	2000	2000	10000	
2	Implementat	tion meet	ings	1000	100	0 100	1000	4000	4000	4000	4000	20000	
TOTALS	•			1,500	1,50	0 1,500	1,500	6,000	6,000	6,000	6,000	30,000	

Action Plan 2: Development Impact
Timeframe: 01/01/2020 to 31/12/2024
Activity: 2.1 Self assessment of impact & 2.2 Independent external evaluation of impact
Sub-Activity Tasks: Monitoring & Evaluation; Tracer studies

RESULT		Mo Fe	nitori edbac	rom self ng & Eva k from e ent of ad	luation mploye	report	; entre g	raduate	es;			
ACTIVIT	ΓY	Coi	nduct t aluate r	evance of racer stuc relevance annual rep	lies for f of resea	eedback Irch on th	from er ne socie	nployer: ty;		ability;		
OUTPUT	ſ	20 10	monito indepe	sessment oring & evandent ext endent ext tudies rep	aluation ernal ev	aluation						
Number Number	T INDICATOR of self assessment of monitoring 8 of tracer studie	evalı	uation o	completed	l;	aluations	done;	Cop	ies of r	F VERIFIC reports; CEFOR we		
IMPLEM MILESTO	ENTATION DNES	Coi	mplete	each asse	essment/	'evaluati	on/stud	y				
PROCUF	REMENT	Ens	sure rig	ht candid	ates are	recruite	d & eng	aged for	the pr	ocesses		
	ISIBILITY FOR ENTATION	M&	E Offic	cer, Deputy Centre Leader, Communication Officer								
DURATION 60 mon		•		ommencer 1/01/2020	mmencement: Completion: 31/12/2024							
	Y CONSTITUENTS iversity and sect) PART	ICIPANTS	: Othe	r indust	ry partı	ners; NU	C; AAU/	WB
ASSUMP	TIONS A	CE-CE	FOR we	ebsite rem	nains fur	ctional 8	every	actor co	operat	es		
FINANC	IAL IMPLICATION	S	Costs	for assess	ment, e	valuation	, M&E,	tracer s	tudies 8	& Board	meeting	S
Budget	Line Analysis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	2021	2022	2023	2024	Total
1	Assess relevand graduates on sincluding empl	ociety		5,000		5,000		10,000	10,000	10,000	10,000	50,000
2	Conduct tracer feedback from					3,000	3,000	3,000	3,000	3,000	15,000	
3	Evaluate relevance research on the				3,500		3,500	7,000	7,000	7,000	7,000	35,000
4	Evaluate annua from Advisory					1,000	1,000	1,000	1,000	1,000	5,000	
TOTALS				5,000	3,500	5,000	7,500	21,000	1,000	21,000	21,000	105,000

Action Plan 3: Quantity of Students Timeframe: 01/01/2020 to 31/03/2024 Activity: 3.1 PhD students; 3.2 Masters students & 3.3 Short course students Sub-Activity Tasks: Advertise, admit and graduate students

RESULT				e PhD, Ma s and 30%				se stud	ents v	vith 30%	6 regio	nal
ACTIVIT	Y	Org Org Ass Org Pre	ganise ganise sign pr ganise esent s	e, shortlist, orientatior modular le oject super seminars for tudents for short cours	n for new ctures for visors to or project defence	ly admit or all stu admitte t propose and gra	tted students; ed studes als and aduation	dents; ents; reports;				
OUTPUT		80	maste	raduates wi rs with 24 i course stu	regional	and 24 f	emales	produce	d;			
Number	INDICATOR of students a of orientation					d short c	ourses;	Cop	ies of r	VERIFIC egistered EFOR we	d studen	its;
IMPLEME MILESTO	ENTATION INES	Co Co	mission of students; mplete modular lectures for students mmencement of research projects; fend research projects and graduation.									
PROCUR	EMENT		sure right candidates are recruited & with the right mix of 30% regional and 3%							and 30%		
	SIBILITY FOR ENTATION	Ce	entre Leader, M&E Officer, Procurement Officer; Deputy Centre Leader									
DURATIO 60 mont		·	Commencement: Completion: 31/12/2024									
	CONSTITUEN versity and se				(UniPort) PARTICIPANTS: Other industry partners; NUC; AAU/WB							
ASSUMP [*]	TIONS	Funds a	are rel	bers work v eased as-at committed	-when d	ue;	•	_				
FINANCI	AL IMPLICATIO	DNS		for advert lar course								for
Budget I	Line Analysis			1st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	2021	2022	2023	2024	Total
1	Advertise, shinterview an students				1,500			1,500	1,500	1,500	1,500	7,500
2	Organise orionewly admit					1,000						1,000
3	Organise mo		ctures			2,000	2,000	4,000	4,000	4,000	4,000	20,000
4	Organise sen project prop reports					3,500		3,500	3,500	3,500	3,500	17,500
5		nt students for ce and graduation						1,200	1,200	1,200	1,200	4,800
6	Organise short courses for students and faculty members			2,500		2,500		5,000	5,000	5,000	5,000	25,000
TOTALS				2,500	1,500	9,000	2,000	15,200	5,200	15,200	15,200	75,800

Action Plan 4: Quality of Education and Research

Timeframe: 01/01/2020 to 31/12/2024

Activity: 4.1 Gap assessment/Accreditation; 4.2 International publications & 4.3 Infrastructure Sub-Activity Tasks: Secure nation/international accreditation; publish & infrastructure improvement

RESULT		Na In Na Pu	elf/Gap a ational a ternatio ew inter ublish in nproved	accredita nal acci nationa ternatio	ation se editation l course onal res	cured; on proc devel earch p	ess ini oped o	r existi with na	ng cou ational	irse rev region	iewéd; al partı		
ACTIVIT	Y	Pe Int Co	onduct na erform sel troduce n onduct ap frastructi	f/gap ass new cours plied res	sessment e/reviev earch, pi	; v existin ublish re	g course sults an	d attend					
OUTPUT		1n 1n 1n 50	no national accreditation obtained; no self/gap assessment exercise completed; no international accreditation obtained; no new/reviewed course for international studies completed; 0 international papers published (35 with national and 15 with regional partners); illestones 1, 2, 3 and 4 for infrastructural improvement completed										
OUTPUT INDICATOR Number of programmes presented for national accreditation; Number of self/gap assessment conducted; Number of programmes subjected to international accreditation; Number of new/reviewed course; Number of journal articles submitted to high impact journals; Initiation of procurement processes for achieving milestones SOURCE OF VERIFICATION E-maiils & other correspondence Accreditation reports; Copies of new/reviewed curric Copies of submission/publication Copies of advertisements/ procurement documentations										rricula; ation;			
	NTATION	Co	omplete a ridence of entify cor	ccreditat	ion form	ns; ing bodi							
PROCUR	EMENT	En ide	sure righ entified,	t accredi engaged	ting bodi for the v	ies, acce arious p	ptable I	high imp	act jou	ırnals an	d vendo	rs	
	SIBILITY FOR ENTATION		entre Lea feguards		Officer,	Procurer	ment Of	ficer; Er	nvironm	nental &	Social		
DURATIO 60 mont				nmencen /01/2020				Comple 31/12/					
	Y CONSTITUEN			(UniPort)	PARTIO	CIPANTS	Other	industr	y partn	ers; NUC	; AAU/V	VB	
ASSUMPT	TIONS		ed office					xpected	standa	rds			
FINANCIA	AL IMPLICATIO	NS .	Costs fo	or accred ructure in	itation, on the state of the st	curriculu ent (pro	ım deve curemei	lopment	:/revievod/serv	w, public rices/wor	ation & ks)		
Budget L	Line Analysis		•	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	2021	2022	2023	2024	Total	
1	Conduct nati		NUC					25,000				25,000	
2	Perform self assessment	/gap						10,000				10,000	
3	Introduce ne review exitir							10,000		10,000		20,000	
4	Conduct app publish resul			35,000		35,000		70,000	70,000	70,000	70,000	350,000	
5	Infrastructur (office renov and external	ation, o	canteen	75,000		75,000		150,000				300,000	
TOTALS	•			110,000	0	110,000	0	265,000	70,000	80,000	70,000	705,000	

Action Plan 5: Relevance of Education and Research

Timeframe: 01/01/2020 to 31/12/2024

Activity: 5.1 Generate external revenue; 5.2 Organise1-month internship & 5.3 Commercialisation

Sub-Activity Tasks: File or commence patenting process

RESULT		Patent Student	l Advisory positive ro ts and fac pact tech	esearch ulty me	results mbers	or pro underta	cesses ake 1-r	; nonth	interns		eet;
ACTIVIT	Y	Organise File or co Organise members	e Sectoral A Internation ommence p 1-month in s; ent technolo	nal Scien patenting nternship	tific Adv process in relev	risory Bo ; vant indo	ustry for	studer		aculty	
OUTPUT		5 Interna 10 Produ 130 Stud	ectoral Advisory Board meetings held; nternational Scientific advisory Board meetings held; Products/Processes patented or are being filed or documented for patenting; O Students/faculty with 39 regional and 39 females complete internship; O Technology incubated and commercialised								
OUTPUT INDICATOR Number of meetings held; Number of products/processes documented for patenting; Number of interns sent for internship; Evidence of initiating technology registration for incubation SOURCE OF VERIFICATION Minutes of meetings; Copies of patent documentati List of interns sent to industry Emails and correspondence								stry;			
IMPLEME MILESTO	ENTATION DNES	Patentab	vitations for meetings; atentable products/processes developed; lentify industry for interns to serve								
PROCUR	EMENT	Ensure ri	nsure right candidates are recruited & engaged for the processes								
	SIBILITY FOR ENTATION		ntre Leader, M&E Officer, Procurement Officer; Environmental & Social feguards Officer, Deputy Centre Leader								
DURATION 60 mont				ommencement: Completion: 31/12/2024							
	CONSTITUENTS: iversity and sector) PARTI	CIPANTS	: Othe	r indust	ry partı	ners		
ASSUMP	TIONS AC	E-CEFOR s	ecures buy	in by Ma	nageme	nt and p	artnerir	ng indu	stry to h	ost inte	rns
FINANCI	AL IMPLICATIONS		s for hostin mercialisat		gs, pate	nting, a	nd tech	nology	incubatio	on &	
Budget l	ine Analysis	•	1st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	2021	2022	2023	2024	Total
1	Organise Sectora Board meetings	l Advisory				2,000	2,000	2,000	2,000	2,000	10,000
2	Organise Interna Scientific Advisor meetings					3,000	3,000	3,000	3,000	3,000	15,000
3	File/commence process	oatenting	1,000		1,000		2,000	2,000	2,000	2,000	10,000
4	Organise 1-montl internship for stu faculty members	ıdents and	d	2,000	2,000	2,000	18,000	18,000	18,000	18,000	78,000
5	Implement technincubation and commercialisation			15,000			15,000	50,000	15,000	15,000	110,000
TOTALS	•		1,000	17,000	3,000	7,000	40,000	5,000	40,000	40,000	223,000

Action Plan 6: Timeliness/Quality of Fiduciary Management
Timeframe: 01/01/2020 to 31/12/2024
Activity: 6.1, 6.2, 6.3 & 6.4 Timely procurement and financial processes, reporting and transparency
Sub-Activity Tasks: Upload reports on Centre website as soon as approved and completed

RESULT		Fu Ce	mely fiduciary (interim financial) report; unctional internal audit system in place; entre expenditure displayed on the Centre website; uality procurement planning and process in place										
ACTIVIT	Ϋ́	Pe Up	rform in load co	nd submit iternal au mpleted (ree and fa	dit on Co Centre p	entre's a	ctivities ent and	every 6	month l transa	ns; actions o	n websi ney	te;	
OUTPUT	,	4 I 5 (Fiduciary reports submitted and on time; Internal audit reports submitted and on time; Complete reports of procurement and financial transaction details on website; Procurement proceedings reported and uploaded on website										
	INDICATOR of reports in	each ca	tegory p	produced	and uplo	aded on	website	Cop	ies of r	F VERIFIC eports; EFOR we			
IMPLEMI MILESTO	ENTATION ONES	Co	Complete each report and upload on website										
PROCUE	REMENT	En	sure tim	nely proce	ess delive	eries							
	SIBILITY FOR ENTATION		entre Leader, M&E Officer, Procurement Officer, Project Accountant, Project auditor, Deputy Centre Leader									ect	
DURATION 60 mont					mmencement: Completion: 31/12/2024								
	Y CONSTITUEN iversity and se			FOR (UniPort) PARTICIPANTS: Other industry partners; NUC; AAU/WB ners							WB		
ASSUMP	TIONS	ACE-CE	FOR we	bsite rem	nains fun	ctional 8	every	actor co	operate	es			
FINANCI	AL IMPLICATION	NS	Costs 1	for conve	ning mee	tings, w	ebsite h	osting 8	t maint	enance			
Budget	Line Analysis		•	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	2021	2022	2023	2024	Total	
1	Prepare and financial rep		interim				500	500	500	500	500	2,500	
2	Perform inte Centre's act		dit on				750	750		750	750	3,000	
3	Upload comp procurement transactions	t and fin	ancial				1,200	1,200	1,200	1,200	1,200	6,000	
4	Conduct free and fair procurement process to ensure value for money							2,500	2,500	2,500	2,500	10,000	
TOTALS	•			0	0	0	2,450	4,950	4,200	4,950	4,950	21,500	

Action Plan 7: Institutional Impact

Timeframe: 01/01/2020 to 31/12/2024
Activity: 7.1, 7.2, 7.3, 7.4, 7.5 & 7.6 Improve regional spread and enhance university governance
Sub-Activity Tasks: Participate in PASET Benchmarking and deploy ICT for innovation in education

RESULT		New partnerships initiated and existing ones renewed with MoUs; University-wide regional strategy published; Persons selected into university leadership positions based on merit; Institutional accreditation and ISO Certification obtained; PASET Benchmarking completed and intervention plan submitted; Milestones on institutional impact completed; ICT facilities provided for innovation in teaching and research;						erit;				
ACTIVITY Initiate, rev Publish Univ Foster Oper Secure insti Participate Establish m				versity-w n merit-b itutional in PASET	ide regio ased selo Internati Benchm on institu	onal stra ection o ional Ac arking/ utional	ategy; of Vice (credita Submit impact;	Chancello tion/ISO Interven	Certific	cation;		
OUTPUT 5nos New/r 1no Univers 2nos Compo 1no Institut 1no Partici 1no Evidence				r/reviewed MoUs endorsed and functional; ensity-wide regional strategy document published; epetitive selection of Vice Chancellor and Dean; utional accreditation/ISO Certification obtained; cipation in PASET Benchmarking and Intervention Plan submitted; ence of facilitating a university-wide function; ence of providing ICT facilities for innovation in teaching & research SOURCE OF VERIFICATION								
Number	of MoUs and repo							Rep	orts & A	ACE-CEFC		ite
MILESTO	NTATION NES	Comp	olete e	each activ	ach activity and publishing same on ACE-CEFOR website							
PROCUR	EMENT	Ensur	e righ	t candidates are recruited & engaged for the processes								
	SIBILITY FOR ENTATION	Centr	e Lea	der, M&E Officer, Procurement Officer, Deputy Centre Leader								
			nmencen /01/2020	nmencement: Completion: 31/12/2024								
PRIMARY CONSTITUENTS: ACE-CEFOR with university and sectoral partners			(UniPort) PARTICIPANTS: Other industry partners; NUC; AAU/WB									
ASSUMP	TIONS ACE	-CEFC	R par	tners coo	perate a	nd func	ls are av	vailable 1	or all a	ctivities		
FINANCI	AL IMPLICATIONS			or travels		eetings,	and pa	rticipatio	on in ac	creditati	on and	
Budget L	ine Analysis			1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr	2021	2022	2023	2024	Total
1	Initiate, review a		dorse		5,000	5,000		15,000	15,000	15,000	15,000	70,000
2	Publish University regional strategy	y-wide	<u> </u>							60,000		60,000
3	Foster Open merit-based selection of Vice Chancellor and Deans							150,000				150,000
4	Secure institutional International Accreditation/ ISO Certification							125,000	75,000			200,000
5	Participate in PASET Benchmarking/Submit Intervention Plan							35,000				35,000
6	Establish milesto institutional impa	ablish milestone on titutional impact			20,000	20,000	20,000					80,000
7	Provide ICT for in teaching and rese		ion in					75,000		75,000		150,000
TOTALS	!			20,000	25,000	25,000	20,000	400,000	90,000	150,000	15,000	745,000

OVERVIEW OF ACE-CEFOR TARGETS, OUTPUTS, BUDGET AND FUNDS (US\$) GENERATION FOR YEARS 2020 TO 2024

Implementation Plan (2020 - 2024)

Table 11: Overview of ACE-CEFOR targets and outputs for years 2020-2024

ACE D. II	D	Y2020	Y2021	Y2022	Y2023	Y2024	TOTAL
ACE Results	Description of Results	No.	No.	No.	No.	No.	No.
DLI 1	Readiness						
DLI 1.1	Basic readiness	0	0	0	0	0	0
DLI 1.2	Full readiness	0	0	0	0	0	0
	Subtotal for DLI 1	0	0	0	0	0	0
DLI 2	Development Impact						
DLI 2.1	Self assessment of development impact	0	4	0	0	0	4
DLI 2.2	Independent external evaluation of impact	0	0	0	4	0	4
	Subtotal for DLI 2	0	4	0	4	0	8
DLI 3	Quantity of Students						
DLI 3.1.1	New national PhD students male	3	6	6	6	6	27
DLI 3.1.2	New national PhD students female	2	3	2	2	3	12
DLI 3.1.3	New regional PhD students male	2	2	3	3	2	12
DLI 3.1.4	New regional PhD students female	1	1	1	1	1	5
	Subtotal for DLI 3.1	8	12	12	12	12	56
DLI 3.2.1	New national Masters students male	5	8	8	9	9	39
DLI 3.2.2	New national Masters students female	2	4	3	4	4	17
DLI 3.2.3	New regional Masters student's male	2	2	3	5	5	17
DLI 3.2.4	New regional Masters students female	1	1	1	2	2	7
	Subtotal for DLI 3.2	10	15	15	20	20	80
DLI 3.3.1	New national short course students male	19	19	24	23	22	107
DLI 3.3.2	New national short course students female	7	7	11	11	11	47
DLI 3.3.3	New regional short course students male	6	6	11	11	12	46
DLI 3.3.4	New regional short course students female	3	3	4	5	5	20
	Subtotal for DLI 3.3	35	35	50	50	50	220

Table 11: Overview of ACE-CEFOR targets and outputs for years 2020-2024 (cont'd) Y2020 Y2021 Y2022 Y2023 Y2024 **TOTAL ACE Results Description of Results** No. No. No. No. No. No. DLI 4 Quality of Education & Research DLI 4.1.1 National accreditation 0 0 0 0 1 1 Self-assessment/gap DLI 4.1.2 0 0 1 0 0 1 assessment DLI 4.1.3 International accreditation 0 1 0 0 0 1 DLI 4.1.4 New/reviewed courses 0 1 0 1 0 2 Subtotal for DLI 4.1 0 4 0 1 0 5 International publications 7 7 7 7 7 DLI 4.2.1 35 with nationals International publications DLI 4.2.2 3 3 3 3 3 15 with regionals Subtotal for DLI 4.2 10 10 10 10 10 50 Milestone 1: Infrastructure DLI 4.3.1 1 0 0 0 0 1 improvement Milestone 2: Infrastructure DLI 4.3.2 0 0 0 1 0 1 improvement Milestone 3: Infrastructure DLI 4.3.3 0 1 0 0 0 1 improvement Milestone 4: Infrastructure DLI 4.3.4 0 1 0 0 0 1 improvement Subtotal for DLI 4.3 2 2 0 0 0 4 DLI₅ Relevance of Education & Research Externally generated DLI 5.1.1 47,500 75,000 87,300 102,500 87,700 400,000 revenue (regional) Externally generated DLI 5.1.2 55,000 100,000 125,400 145,000 572,000 146,600 revenue (others) 972,000 Subtotal for DLI 5.1 102,500 175,000 212,700 247,500 234,300 Number of male national DLI 5.2.1 5 15 15 15 14 64 interns Number of female national DLI 5.2.2 2 7 6 8 6 29 interns Number of male regional DLI 5.2.3 2 7 6 6 6 27 interns Number of female regional DLI 5.2.4 1 2 2 3 4 12 interns Subtotal for DLI 5.2 10 30 30 32 30 132

0

0

0

1

1

0

Number of new

entrepreneurship programs

DLI 5.3

Table 11: Overview of ACE-CEFOR targets and outputs for years 2020-2024 (cont'd) Y2020 Y2021 Y2022 Y2024 TOTAL Y2023 **ACE Results Description of Results** No. No. No. No. No. No. DLI 6 Timeliness/Quality of Fiduciary Management DLI 6.1 1 1 Timely fiduciary reporting 1 1 5 Functional oversight DLI 6.2 0 1 1 1 1 4 (internal audit unit) Web transparency (Centre DLI 6.3 1 1 1 1 1 5 expenditures) Quality of procurement DLI 6.4 0 1 1 1 1 4 (planning) 3 3 Subtotal for DLI 6 4 4 4 18 DLI 7 Institutional Impact UniPort university-wide DLI 7.1 0 0 0 1 0 1 regional strategy Open, merit-based selection DLI 7.2.1 0 1 0 0 0 1 of VC Open, merit-based selection DLI 7.2.2 0 0 0 1 0 1 of deans Subtotal for DLI 7.2 0 2 0 0 0 2 Conducts gap assessment/ DLI 7.3.1 0 0 0 0 1 1 self-evaluation Secures institutional international accreditation/ DLI 7.3.2 0 0 1 0 0 1 ISO Certification Subtotal for DLI 7.3 0 0 2 0 0 2 UniPort participates in PASET Benchmarking DLI 7.4 0 1 0 0 0 1 initiative and submits intervention plan Milestone on institutional

1

0

0

1

0

0

0

1

0

0

1

2

DLI 7.5

DLI 7.6

impact

ICT for innovation in

teaching & research

Table 12: O	verview of ACE-CEFOR bud	get and f	unds (US\$	i) generat	ion for y	ears 2020	-2024
ACE Results	Description of Bosults	Y2020	Y2021	Y2022	Y2023	Y2024	TOTAL
ACE Results	Description of Results	Amount	Amount	Amount	Amount	Amount	Amount
DLI 1	Readiness						
DLI 1.1	Basic readiness	0	0	0	0	0	0
DLI 1.2	Full readiness	0	0	0	0	0	0
	Subtotal for DLI 1	0	0	0	0	0	0
DLI 2	Development Impact						
DLI 2.1	Self assessment of development impact	0	100,000	0	0	0	100,000
DLI 2.2	Independent external evaluation of impact	0	0	0	100,000	0	100,000
	Subtotal for DLI 2	0	100,000	0	100,000	0	200,000
DLI 3	Quantity of Students						
DLI 3.1.1	New national PhD students male	30,000	60,000	60,000	60,000	60,000	270,000
DLI 3.1.2	New national PhD students female	25,000	37,500	25,000	25,000	37,500	150,000
DLI 3.1.3	New regional PhD students male	25,000	25,000	37,500	37,500	25,000	150,000
DLI 3.1.4	New regional PhD students female	15,600	15,600	15,600	15,600	15,600	78,000
	Subtotal for DLI 3.1	95,600	138,100	138,100	138,100	138,100	648,000
DLI 3.2.1	New national Masters students male	10,000	16,000	16,000	18,000	18,000	78,000
DLI 3.2.2	New national Masters students female	5,000	10,000	7,500	10,000	10,000	42,500
DLI 3.2.3	New regional Masters student's male	8,000	8,000	12,000	20,000	20,000	68,000
DLI 3.2.4	New regional Masters students female	5,000	5,000	5,000	10,000	10,000	35,000
	Subtotal for DLI 3.2	28,000	39,000	40,500	58,000	58,000	223,500
DLI 3.3.1	New national short course students male	7,600	7,600	9,600	9,200	8,800	42,800
DLI 3.3.2	New national short course students female	3,500	3,500	5,500	5,500	5,500	23,500
DLI 3.3.3	New regional short course students male	4,800	4,800	8,800	8,800	9,600	36,800
DLI 3.3.4	New regional short course students female	3,000	3,000	4,000	5,000	5,000	20,000
	Subtotal for DLI 3.3	18,900	18,900	27,900	28,500	28,900	123,100
	Subtotal for DLI 3	142,500	196,000	206,500	224,600	225,000	994,600

Implementation Plan (2020 - 2024)

Table 12: Overview of ACE-CEFOR budget and funds (US\$) generation for years 2020-2024 (cont'd)

(cont d)		Y2020	Y2021	Y2022	Y2023	Y2024	TOTAL
ACE Results	Description of Results	Amount	Amount	Amount	Amount	Amount	Amount
DLI 4	Quality of Education & Research		Amount	Amount	Alliount	Amount	Alliount
	Quality of Education & Resear	0	100,000	0	0	0	100.000
DLI 4.1.1	National accreditation	U	100,000	U	U	U	100,000
DLI 4.1.2	Self-assessment/gap assessment	0	100,000	0	0	0	100,000
DLI 4.1.3	International accreditation	0	300,000	0	0	0	300,000
DLI 4.1.4	New/reviewed courses	0	50,000	0	50,000	0	100,000
	Subtotal for DLI 4.1	0	550,000	0	50,000	0	600,000
DLI 4.2.1	International publications with nationals	70,000	70,000	70,000	70,000	70,000	350,000
DLI 4.2.2	International publications with regionals	45,000	45,000	45,000	45,000	45,000	225,000
	Subtotal for DLI 4.2	115,000	115,000	115,000	115,000	115,000	575,000
DLI 4.3.1	Milestone 1: Infrastructure improvement	75,000	0	0	0	0	75,000
DLI 4.3.2	Milestone 2: Infrastructure improvement	75,000	0	0	0	0	75,000
DLI 4.3.3	Milestone 3: Infrastructure improvement	0	75,000	0	0	0	75,000
DLI 4.3.4	Milestone 4: Infrastructure improvement	0	75,000	0	0	0	75,000
	Subtotal for DLI 4.3	150,000	150,000	0	0	0	300,000
	Subtotal for DLI 4	265,000	815,000	115,000	165,000	115,000	1,475,000
DLI 5	Relevance of Education & Res	earch					
DLI 5.1.1	Externally generated revenue (regional)	95,000	150,000	174,600	205,000	175,400	800,000
DLI 5.1.2	Externally generated revenue (others)	55,000	100,000	125,400	145,000	146,600	572,000
	Subtotal for DLI 5.1	150,000	250,000	300,000	350,000	322,000	1,372,000
DLI 5.2.1	Number of male national interns	5,000	15,000	15,000	15,000	14,000	64,000
DLI 5.2.2	Number of female national interns	2,000	6,000	7,000	6,000	6,000	27,000
DLI 5.2.3	Number of male regional interns	3,000	10,500	9,000	9,000	9,000	40,500
DLI 5.2.4	Number of female regional interns	1,500	3,000	3,000	4,500	6,000	18,000
	Subtotal for DLI 5.2	11,500	34,500	34,000	34,500	35,000	149,500
DLI 5.3	Number of new entrepreneurship programs	0	0	100,000	0	0	100,000
	Subtotal for DLI 5	161,500	284,500	434,000	384,500	357,000	1,621,500
	l						

Table 12: Overview of ACE-CEFOR budget and funds (US\$) generation for years 2020-2024 (cont'd)

(cont d)							
ACE Results	Description of Results	Y2019	Y2020	Y2021	Y2022	Y2023	TOTAL
ACL Results	Description of Results	Amount	Amount	Amount	Amount	Amount	Amount
DLI 6	Timeliness/Quality of Fiduciary Management						
DLI 6.1	Timely fiduciary reporting	15,000	15,000	15,000	15,000	15,000	75,000
DLI 6.2	Functional oversight (internal audit unit)	15,000	15,000	0	15,000	15,000	60,000
DLI 6.3	Web transparency (Centre expenditures)	15,000	15,000	15,000	15,000	15,000	75,000
DLI 6.4	Quality of procurement (planning)	0	15,000	15,000	15,000	15,000	60,000
	Subtotal for DLI 6	45,000	60,000	45,000	60,000	60,000	270,000
DLI 7	Institutional Impact						
DLI 7.1	UniPort university-wide regional strategy	0	0	0	100,000	0	100,000
DLI 7.2.1	Open, merit-based selection of VC	0	200,000	0	0	0	200,000
DLI 7.2.2	Open, merit-based selection of deans	0	50,000	0	0	0	50,000
	Subtotal for DLI 7.2	0	250,000	О	0	0	250,000
DLI 7.3.1	Conducts gap assessment/ self-evaluation	0	0	75,000	0	0	75,000
DLI 7.3.2	Secures institutional international accreditation/ ISO Certification	0	0	200,000	0	0	200,000
	Subtotal for DLI 7.3	0	0	275,000	0	0	275,000
DLI 7.4	UniPort participates in PASET Benchmarking initiative and submits intervention plan	0	50,000	0	0	0	50,000
DLI 7.5	Milestone on institutional impact	100,000	0	0	0	0	100,000
DLI 7.6	ICT for innovation in teaching & research	0	100,000	0	100,000	0	200,000
	Subtotal for DLI 7	100,000	400,000	275,000	200,000	0	975,000
	Total revenue expected triggered from ACE program	644,858	1,675,819	971,352	1,024,277	683,694	5,000,000
	Additional government funding support	-	-	-	-	-	-
	Other external revenue generation	69,142	179,681	104,148	109,823	73,306	536,100
	Total Income	714,000	1,855,500	1,075,500	1,134,100	757,000	5,536,100

ANNEXURE A:

Brief Terms of Reference (TOR) for each ACE team member

4.4.1 Centre Leader

The Centre Leader, Professor Ogbonna F. Joel, is a Chemical/Petrochemical Engineer and presently the African Regional Representative of National Registry of Environmental Professionals (USA) and the Director, Centre of Petroleum Research and Training, Institute of Petroleum Studies, University of Port Harcourt, Nigeria. Professor Joel has 18 years' experience in various aspects of global best practice in laboratory management and research protocols in oil field chemicals acquired at the Halliburton Research Centre, Duncan, USA and Halliburton Energy Services, Nigeria where he had served in various Senior Management capacities from Technology Manager to Scientific Advisor. He shall be responsible for the coordination of all centre activities and the day-to-day management and implementation of the project to achieve set targets. His major roles shall be to ensure that the project is delivered on time, according to budget, and required standards (within agreed tasks and targets specifications) through prudent allocation of and utilisation of resources for efficiency as well as maintaining a cooperative, motivated and successful ACE team. Specifically, his responsibilities shall include, among others: managing and leading the ACE project team; managing and coordination of all the stakeholders (academic, industry, national and regional partners) engaged in the project; secure the support and partnership of prospective project partners; developing and maintaining project implementation plan; managing project deliverables in line with WB endorsed project implementation plan; continually monitoring the progress and performance of the ACE project; achieve the overall training and capacity building objectives of the project; submit progress reports at regular intervals; managing project evaluation processes; prompt and wide dissemination of project activities such as through project website and other media, and recruit project staff whenever there is a compelling need to do so.

4.4.2 ACE Coordinator, UniPort

The ACE Coordinator, UniPort, Professor Onyewuchi Akaranta, is an Industrial Chemist with several years of experience in project management and administration, and grantsmanship. He is, currently, the Director, Science Institute, University of Port Harcourt (UniPort). Until his appointment as ACE Coordinator, UniPort, he was the Deputy Centre Leader, ACE-CEFOR. Prof. Akaranta was the Director, Centre for Research Management, University of Port Harcourt, Nigeria from 2010-2014 and has also served as Director, Exchange and Linkage Programmes Unit between 2006 and 2010, and was a team member of a recently completed World Bankfunded STEP-B project in the University of Port Harcourt. He is a Fellow of Polymer Institute of Nigeria, and a member of several other national, regional and international professional bodies including the Chemical Society of Nigeria, the West African Research and Innovation Management Association, and the Oil and Colour Chemists Association of the United Kingdom. Professor Akaranta has extensive experience in agro-wastes utilisation and his research interest is on oilfield chemistry. Specifically, Prof. Akaranta shall work with the Centres Management Committees of both World Bank Centres and perform the academic planning, quality assurance and quality control, and research management functions to ensure that, the two Centres ate at par in running the academic programmes and industry-based applied researches at their Centres.

4.4.3 **Deputy Centre Leader**

The Deputy Centre Leader, Professor Ikechukwu Ozoemenam Agbagwa, is a professor of Taxonomy and Molecular Biology. He is also the Director, Quality Assurance & Quality Control, University of Port Harcourt and the University's Desk/Liaison Officer for Association of African Universities (AAU) and Association of West African Universities (AWAU) related matters. He has supervised over 50 undergraduates, five post-graduate diplomas, 13 M.Sc. and six Ph.D. in Biosystematics and Taxonomy, Plant Biotechnology, Ecology and Environmental Management, and published over 90 scientific research works in local and international journals (peer reviewed journal articles, published conference papers, book chapters, and technical reports). He has been actively involved in mentoring young colleagues and Ph.D. students. Awards and research grants received by Prof. Agbagwa either singly or in research groups include WHO/TDR/MIM Africa Research Capability Grant (1999 – 2001), Plant DNA Barcoding Grant at the

Implementation Plan (2020 - 2024)

Molecular Systematics Lab, Department of Botany and Biotechnology, University of Johannesburg, South Africa (2009), MacArthur Foundation Grant for establishment of Institute of Natural Resources, Environment and Sustainable Development at University of Port Harcourt (2011 – 2014), DBT-TWAS Postdoctoral Fellowship Award in Plant Biotechnology/Genomics at the Biotechnology Unit, Indian Institute of Pulses Research, Kanpur India (2011 - 2012), UNESCO-TWAS Associateship Fellowship, Beijing Institute of Genomics, Chinese Academy of Sciences (CAS 2013 - 2015), CAS President's International Fellowship Initiative (PIFI) for Visiting Professors, Institute of Genetics & Developmental Biology, Chinese Academy of Sciences (CAS), Beijing China (2015 - 2016). Prof. Agbagwa served as Lead Environmental Consultant to the World Bank - assisted West African Agricultural Productivity Programme (WAAPP-Nigeria) on Environmental & Social Management Plan (ESMP) and Lead Lecturer, Technical Trainings/Workshops on World Bank Environment & Social Safeguard Policies, Implementation of Environmental and Social Management Plan (2012 and 2014). From 2007 till date, he is retained by the Federal Ministry of Environment, Nigeria as expert Ecologist on Environmental Impact Assessment (EIA) Review. He is a member of several professional bodies. The Deputy Centre Leader shall work, closely, with the Centre Leader and drive the proper and timely implementation of all project activities.

4.4.4 Project Monitoring and Evaluation Officer

The M&E Officer, Mr. Uduma Ikpa, has been responsible for monitoring the progress of projects in the IPS-TOTAL E&P Nigeria Ltd collaboration for several years. He shall, continually, monitor the project at regular intervals as specified in the Gantt chart and usually before CEFOR submits any progress report to the AAU office for the World Bank. The Officer, who shall also use the findings from the monitoring reports, shall prepare the evaluation report at the end of each project year. The process shall help to redirect the CEFOR whenever there are indications that the expected project results are not being met. The M&E Officer shall ensure that project implementation is in line with the provisions of the ACE Project and in line with the ACE-CEFOR project's Results Framework.

4.4.5 **Project Auditor**

The Project Auditor, Dr. Edwin Harcourt, is a Chartered Auditor and the Director of Internal Audit of the Bursary Department, University of Port Harcourt. As Head of the Internal Audit Directorate and the ACE-CEFOR Audit Committee, his primary responsibility is to ensure that, there is high value for every dollar expended on the ACE-CEFOR project. Generally, he shall ensure the financial statement is in compliance with the ACE policy and shall be responsible for initial final authorisation for procurement as well as be involved in the process of product verification and tagging after procurement. He shall also verify all Eligible Expenditure Programs (EEPs) and lead the Internal Audit Committee in following up on all identified audit issues and recommendations.

4.4.6 Procurement Officer

The Procurement Officer, Prof. Ibisime Etela, shall ensure that there is value for money by sourcing for the right places to get the right quality of equipment, facilities, engaging consultants and the likes for successful implementation of the ACE-CEFOR project. Specifically, the Procurement Officer shall ensure that the procurement plan for the ACE-CEFOR project is based on needs assessment; receive adequate funds appropriation for identified ACE-CEFOR goods/works/services for efficient service delivery and minimise payment delays; advertise specifications in two national dailies (including Federal Tenders journal) and ACE-CEFOR project web site; ensure transparent pre-qualification and tender exercise; and give adequate notice to all service providers (vendors) on procurement process timelines for effective and timely project implementation. Generally, the Procurement Officer shall that procurement is done based on identified needs, securing the necessary funding approvals, a developed procurement plan, selection of competent suppliers/service providers/vendors to provide the needed service, preparation of the relevant contract documents to ensure compliance by both parties, and re-evaluating the supplies to be sure that the quality of the product is commensurate with the maximum value for money.

Implementation Plan (2020 - 2024)

4.4.7 Project Accountant / Finance Officer

The Project Accountant / Finance Officer is Mr. Benson P. Timah and holds a Bachelors of Science (B.Sc.) in Accountancy; Master of Science (M.Sc.) in Accounting; Master of Business Administration (MBA) in Accounting; and, currently, pursuing a Doctor of Philosophy (PhD) degree in Accounting. His professional qualifications and membership include being Member, Association of National Accountants of Nigeria (ANAN); Member, Chartered Institute of Taxation of Nigeria (CITN); Member, Association of Chartered System Accountants (ACSA), USA; Member, Chartered Institute of Forensic and Investigative Auditors of Nigeria; and Member, Nigerian Accounting Association. Mr. Timah is also, presently, the Treasury Officer, University of Port Harcourt (UniPort). Previous experience include being Financial Manager, UniPort (1998 to date); Tax Consultant (2016 to date); Forensic and Investigative Expert (2018 to date); and System Accounting Expert (2015 to date); Researcher and author of several articles (in journals). Generally, the Project Accountant shall see to it that all financial transactions of ACE-CEFOR are conducted in accordance with existing National Accounting Standards of the Federal Republic of Nigeria. He shall ensure that proper financial records for the ACE-CEFOR are maintained and made available on a timely basis through the financial reports at regular intervals and posted on the Centre web page. His responsibilities shall include: submitting biannual Interim Financial Reports: Detailed statement of sources and uses of funds for project activities; Preparation, submission and publication of bank and reconciliation statements for the ACE-CEFOR account; ensure that annual financial accounts are prepared and submitted within three months after the end of each project year, and within six months after the end of each year the finances of the ACE-CEFOR are audited following the risk-based approach and submitted. In addition, he shall ensure publication of annual work plans, budgets, interim financial reports and the audited accounts on ACE-CEFOR website. Furthermore, the roles of the Project Accountant/Finance Officer shall include timely submission of withdrawal application with: Commitment of government to invest in ACE-CEFOR; Proof of money transfer for previous tranche by Ministry of Finance; Proof of commitment for the next year; Proof of previous results achievements by ACE-CEFOR, and the report of verified Eligible Expenditure Programs by the Internal Audit Department.

4.4.8 Environment Safeguards / Industry Liaison Officer

Dr. C.E. Ubani has a PhD in Petroleum Engineering and has several years of experience in oil and gas operations, safety and environmental management. The Safeguards Officer, shall be in charge of the environmental management plan of CEFOR. Also, Dr. Ubani has been coordinating industry, internship and academic exchange programmes for the Centre.

4.4.9 Communication Officer

The Communication Officer, Mrs. Benedicta Omeni, will primarily be responsible for communication and dissemination of project information including the ACE–CEFOR website management. The Communication Officer shall ensure proper content management (prepare and submit meeting reports; news; Centre events, photos and videos; profiles; project updates; Annual Reports) and strategic stakeholders engagement (facilitate meetings; Facebook and blog management; prepare policy briefs; bulletins/newsletters; communicate major research results; manage Centre emails).

4.4.10 Students Representative

The students representative is Dumka Esaenwi who is a PhD student at the World Bank Africa Centre of Excellence for Oil Field Chemicals Research (ACE-CEFOR) with registration number G2018/PhD/ACE-CEFOR/FT/010. He holds a Bachelors degree in Petroleum Engineering and a Masters degree in Gas, Refining and Petrochemicals both from the University of Port Harcourt, Choba, Nigeria (UniPort). During his time in the University as an undergraduate, he served as Financial Secretary for the Society of Petroleum Engineers (SPE), UniPort Chapter and, later became the President SPE, UniPort Chapter. During his masters degree programme, he was nominated as the class representative and, was also elected the Class President of his PhD class as a result of his exemplary leadership skills in previous assignments. His professional experience include working in the industry as a graduate engineer with Adano Engineering Company at the Forcados Terminal where he rose to the enviable position of Technical Assistant to the Managing Director due to his being very dedicated and diligent in carrying out his duties. Mr. Esaenwi is a fan of modern democracy, which guides his service delivery in meeting the roles and responsibilities of any position he occupies. As Students

Implementation Plan (2020 - 2024)

Representative, he shall serve as liaison officer between the Centre and the students on the one hand and between the students and the regulatory bodies (NUC/AAU/WB) on the other hand.

4.4.11 Industry Partners

Our industry partners shall, collectively, be represented on the ACE-CEFOR Steering Committee and, in addition, play the following roles and responsibilities towards the successful implementation of the ACE-CEFOR project:

- i. Organise joint trainings, short courses, conferences and workshops;
- ii. Provide industry-based lecturers to enrich teaching and partake in curricula review exercise;
- iii. Provide platforms for sending faculties and students for outreach programs and vice versa:
- iv. Serve as professional windows for consultancy services by the ACE-CEFOR for external revenue generation and as part of the sustainability plan;
- v. Endowment of Professorial Research Chairs in Oilfield Chemicals Research and related areas;
- vi. Provide sponsorship for selected faculties and students with compelling industry-related research projects, and
- vii. Make available industry-relevant research facilities and laboratory equipment.

Implementation Plan (2020 - 2024) ANNEXURE B:



ACE in Oil Field Chemicals Research

Institute of Petroleum Studies

University of Port Harcourt



Annexure B: FINANCIAL MANAGEMENT MANUAL

1) PAYMENT PROCEDURE

IPS has three expenditure heads biz, Staff, Lecturers and Service Providers as is also supported by budget. Payment are made at month end first to Staff, thereafter list of Lecturers and Service Providers who have completed their job and certified are compiled, cheques written and forwarded to the Director and or Coordinator for signing.

In situations where there are no enough funds, the list of creditors are compiled and forwarded to the Director and critical ones that available fund can carry are selected and paid. In which case the rest are paid any period of the month when funds are received.

Payments are made on demand for cash purchases and emergency needs as approved.

This method has proven the following advantages:

- It makes periodic financial planning easy.
- Creditors already make up their mind for month end rather than come every day to demand for payment.
- It makes work easier for both the Accounts Unit and the Authorities who authorize payment and sign cheques as there will be less interruption from persons coming to demand for payment at their own time.
- The organization has a standard in place and so clients adjust to it.

There is, therefore, need to maintain this procedure.

2) FINANCIAL REPORTING ARRANGEMENTS

ACE-CEFOR shall submit semi-annual internally and/or externally audited Interim Financial Reports (IFR) within 45 days of the end of the reporting period. Timely submissions shall be effected to ensure strict compliance with DLI3. The IFR shall comprise:

- Statement of sources and uses of funds
- Detailed statement of uses of funds by Project Activity/Component
- Bank and Reconciliation Statements for the Designated and Project Account

ACE-CEFOR shall also submit the withdrawal application with the following documents:

- Commitment of government to invest in ACE-CEFOR through a specific budget line
- Money transfer proof of previous tranche from MoF to CEFOR designated account
- Proof of commitment for the next year
- ACE-CEFOR proof of results achievement
- Verified Eligible Expenditure Programs (EEPs) by ACE Internal Audit Department

ACE-CEFOR, working in accordance with National Accounting Standards of the Federal Republic of Nigeria, shall ensure that after the end of the financial year,

- Within THREE months: annual accounts are prepared
- Within SIX months: the annual reports are audited (risk based approach) and submitted
- Audit Committee follow-up on audit issues and recommendations
- Publish work plan, budgets, interim financial reports and audited accounts on website.

Implementation Plan (2020 - 2024)

ANNEXURE C:

ACE in Oil Field Chemicals Research



Institute of Petroleum Studies

University of Port Harcourt



Annexure C: PROCUREMENT MANUAL

1) PREAMBLE

The University of Port Harcourt, Nigeria is a body corporate established by the University of Port Harcourt Act of 1978 Cap U 13 Laws of the Federal Republic of Nigeria as a public tertiary institution and owned by the Federal Government of Nigeria. Thus, as a public entity, the University does procurement based on the Principles of the Bureau of Public Procurement (BPP) in line with the provisions of the World Bank (www.bpp.gov.ng). To institutionalise procurement following global best practices, the Federal Government of Nigeria (FGN) in consultation with some international development partners such as the World Bank created the Bureau of Public Procurement (BPP) in 2007 via the Public Procurement Act of 2007. The BPP is charged with the responsibility to monitor and regulate procurement practice in Nigeria.

Following the successful internalisation of the Public Procurement Act 2007, in line with the Entrepreneurial drive of the present administration at the University of Port Harcourt, a Procurement Unit was created in 2013 headed by a seasoned Procurement Officer as Head. And since the creation of the Procurement Unit, the University has improved its procurement practice by adhering, strictly, to the letters of BPP while, maintaining global procurement best practices that are needs-based towards achieving transparency, fairness, timeliness and value for money.

Thus, contracts with third parties are handled in an all-time efficient manner, cost saving and deliver goods/materials/works/services to end-users or user department(s) in safe conditions and fit-for-purpose. As a result, all expenditures are guided and approved by the Vice Chancellor under due process and this has returned positive results.

2) OUR PROCUREMENT PROCEDURE

Generally, the procurement procedure in the University of Port Harcourt follows the nine essential steps in public procurement and these are:

Step	Description
1	Ensuring that the procurement plan for any project is driven by needs assessment
2	Identified needs for particular goods/works/services, receive adequate funds appropriation to ensure efficient service delivery and minimize payment delays
3	Identified goods/works/services with their specifications advertised in, at least, two national dailies, the Federal Tenders journal, and the website
4	Ensure a transparent pre-qualification and tender exercise
5	Timeline given to interested Service Providers (Vendors) within which bid submissions and openings shall be conducted in an open and transparent manner

Implementation Plan (2020 - 2024)

6	Opened bids evaluated both for technical and financial feasibilities in the presence of the Tenders Board, and the Service Providers (Vendors)
7	Approval from the Tender Board and/or Governing Board
8	Contract awarded to the Service Provider (Vender) adjudged most suitable and commencement of execution
9	Project implementation by Service Provider (Vendor)

Some specific procedures adopted by the Institute of Petroleum Studies for procurement of goods/works/services are outlined below under two broad headings namely: cash purchases, and supply/contract.

A. CASH PURCHASES

- 1. Requisition by the User Unit (ACE-CEFOR)
- 2. Estimate for items requested/material specifications Technical Unit/User Unit
- 3. Vetting of estimate by IPS Internal Control/Recommendation
- 4. Requisition approval Director/Assistant Director
- 5. Purchases
- 6. Receiving/verification User Unit/IPS Internal Control
- 7. Retirement of cash advanced/submission of purchase receipts

B. SUPPLY/CONTRACT

- 1. Job/material requisition
- 2. Job/material specification Technical Unit/User Unit.
- 3. Cost Estimate User Unit/Accounts Unit
- 4. Call for/collection of quotation from vendors
- 5. Comparison/vetting of quotations IPS Internal control(Accounts/Requester)
- 6. Recommendation of a vendor/price
- 7. Technical Committee meet to approve vendor/prices
- 8. Approval Director/Assistant Director
- 9. LPO (Award Letter)
- 10. Receiving/Verification by Technical Unit/User Unit
- 11. Inspection/Certification IPS Accounts/IA Uniport
- 12. Completion certificate/Payment

N/B: For Internal control:

- There should be Internal Control pricing value with approved mark up
- Maximum amount of cash purchases to be ₹20,000.00 i.e. section A
- Requesting Unit/Accounts Unit to verify items delivered before IA Uniport
- There should be approved vendors
- Items to be supplied by approved vendors and verified by Technical Unit/User
- Tender Committee to be made up of (Accounts, Technical, Admin. Sec. and headed by Assistant Director)

3) CURRENT APPROVAL THRESHOLDS

Shall be as contained in the National Public Procurement Act (www.bpp.gov.ng).

Implementation Plan (2020 - 2024)

4) EXISTING BEAUROCRATIC CHALLENGES AND MITIGATION STRATEGIES

(Budget Implementation Process)

S/№	Bureaucratic Challenges	Mitigation Strategies
1	Ignorance about the relevant laws, regulations and guidelines	Copies of Procurement Act 2007 and relevant BPP documents for officers
2	Delays in obtaining approvals for the various stages of procurement process	Work within timelines and whistle blow on Procurement matters for attention
3	Delays in processing payments	Electronic payments within 2 weeks
4	Challenges in documentation	Circulate copies of Procurement Plan
5	Delays in processing memos	Two weeks target for treating all memos

5) CODE OF CONDUCT FOR ACE-CEFOR OFFICERS INVOLVED WITH PROCUREMENT

The Procurement Officer and all other officers involved in the procurement process of ACE-CEFOR must be governed by the principles of Honesty, Accountability, Transparency, Fairness, and Equity and subscribe to an oath to this effect.

Specifically, we shall perform our procurement duties in strict compliance with the following Code of Conduct and shall:

- (a) Wear our identity cards at all times while executing our functions.
- (b) Comply with lawful directives by leader of the Tenders Board or a representative.
- (c) Not grant press interviews or comments on any procurement proceedings; approval.
- (d) Not wear any apparel which reflects affiliation with a Bidder or Service Provider (Vendor) or in any way canvass for one to win the procurement proceedings.
- (e) Not participate in any function or activity that could lead to the perception of being favourably disposed to a particular Bidder or Service Provider (Vendor).
- (f) Not accept any gift, offer of employment, favour or benefit, item or service from any Bidder or Service Provider (Vendor) involved in the procurement proceedings.
- (g) Display strict impartiality in discharging our duties in the procurement proceedings and at no time indicate or express any statement capable of public incitement.
- (h) Desist from doing anything to comprise the integrity of procurement proceedings.
- (i) Decline in serving in a procurement process if any of the Bidders or Service Providers (Vendors) is a blood relative or spouse or grant relationship or where the success of such Bidder or Service Provider (Vendor) will confer pecuniary or other advantages.
- (j) Not create a source of personal or organizational revenue or advantage by inordinately using public knowledge, which comes in the course of duty.
- (k) Take reasonable steps to be factual and substantiate information to be used in the procurement report.

Breach of this Code of Ethics may amount to violation of Public Procurement Act 2007.

Implementation Plan (2020 - 2024)

6) ADVERTISEMENT PROCEDURE

Advertising the contract in the Federal Tenders Journal and, at least, TWO national dailies.

7) CONFLICT OF INTEREST POLICY

It is not permissible for an officer or member of staff of the issuing unit/centre to tender or bid for such a contract emanating from the issuing unit or department.

8) PROCEDURE FOR TENDERING AND BIDDING

S/Nº	Action	Timeline	Beginning of Timeline
1	Procurement planning	2 months	From the date of release of Budget
2	Response to requests for clarifications	2 weeks	From the date of request
3	Submission of memos	2 weeks	From the date of issuance of "No Objection" Certificate
4	Award of Contracts	5 months	From the date of release of Budget
5	Payment of contractors	2 weeks	From the date of payment approval

9) COMPLAINTS PROCEDURE AND SETTLEMENT OF CONTRACTUAL DISPUTES

Step	Description
1	Make a written complaint to the Procurement Officer within 15 working days from when aware of the breach or omission
2	Procurement Officer reviews complaint and communicates decision on the matter to the complainant within 15 working days giving reasons for decision and proffer corrective measures to be taken, where necessary
3	If the Procurement Officer fails to make a decision within the given period or the complainant is not satisfied with the decision, the contractual dispute(s) shall be resolved through dialogue between ACE-CEFOR and the bidder/Service Provider within 10 working days.
4	Where that fails, the legal units of both parties shall engage in consultations to resolve such dispute(s) within 10 working days.
5	But, where both attempts fail, an Independent Arbitration Panel made of three persons comprising one each, independently, appointed by ACE-CEFOR and the bidder/Service Provider, and a third person mutually acceptable to both appointees of disputing parties shall deliberate on the matter and make a decision within 15 working days.
6	If the Independent Arbitration Panel fails to make a decision within the given period or the complainant is not satisfied with the decision, the complainant can forward his complaint to the BPP within 15 working days from the date that decision was communicated to the bidder, the complainant shall communicate to the BPP

7	Upon receipt of the complaint, the BPP notifies ACE-CEFOR and may suspend any further action by ACE-CEFOR until the matter is settled
8	 Unless the BPP dismisses the complaint, it shall further: Prohibit the ACE-CEFOR from taking further action; Nullify part or all of the lawful act or decision of ACE-CEFOR; Declare or make known the rules and principles governing the subject matter of the complaint; Reverse any improper decision by ACE-CEFOR or substitute its own decision for the improper one.
9	The BPP shall notify all interested bidders of complaint before taking any decision on the matter and may consider representations from bidders and ACE-CEFOR
10	The BPP shall make its own decision within 21 working days after receiving the complaint and shall give the reasons for its decision and the remedies granted, if any
11	If the BPP fails to make its decision within the given time or if the complainant is not satisfied with the BPP's decision, the complainant may appeal to the Federal High court within 30 days after receipt of the BPP's decision or the expiration of the time specified for the BPP to make decision.
12	The decision of the Federal high Court shall be final on the matter and no further appeals shall lie.

10) PROCEDURE FOR PROCUREMENT AUDIT

Procurement shall be audited within 30 days of completing transactions.

11) UNIVERSITY OF PORT HARCOURT PROCUREMENT DOCUMENTS

> Oath of Allegiance for ACE-CEFOR Officers Involved with Procurement

Implementation Plan (2020 - 2024) OATH OF ALLEGIANCE FOR ACE-CEFOR OFFICERS INVOLVED WITH

PROCUREMENT

I do, solemnly,	swear/affirm that I will in the
discharge of my duties be governed at all time	s by the principles of honesty,
accountability, transparency, fairness and equity.	I will use the best of my abilities
and endeavours to discharge my responsibilities in	a way and manner that promotes
the objectives of the Public Procurement Act 20	007, and policies and regulations
made there under the Constitution of the Feder	al Republic of Nigeria 1999 and
other laws in that regard, that I shall not take a	dvantage of any information that
comes to me for any personal gain or extort mone	ey or blackmail a party/bidder of
the procurement proceedings.	
So, help me God.	
Name:	
Designation:	Agency:
	D 4
Signature:	Date:

Implementation Plan (2020 - 2024) ANNEXURE D:



ACE in Oil Field Chemicals Research

Institute of Petroleum Studies

University of Port Harcourt



Annexure D: HEALTH, SAFTY & ENVIRONMENT MANUAL

A GUIDE FOR STUDENTS, STAFF AND VISITORS

Introduction

This health, safety and environment (HSE) manual is divided into two parts.

The first part deals with general safety practices and responsibilities and your personal safety while you are on the premises of IPS or at the students' lodge.

The second part deals with safety while on any vehicle.

The purpose of this manual is to inform you about your personal safety and the levels of responsibility for organizational safety of the Institute

It is important that you study this manual very carefully – it could be crucial to your safety, the safety of others and your ability to respond properly in a situation of crisis.

Goals:

Our clear goal is to achieve zero injuries or accidents.

Part I

HSE is everyone's responsibility

Management Responsibility

Good management involves setting the standard. The management of the Institute shall demonstrate commitment to HSE-MS through the following:

- That officers shall be appointed to take charge of HSE issues of the Institute
- That HSE shall be given a top priority
- That known risks and hazards shall be identified, publicized and reduced
- Selection of HEE-friendly solutions
- Provision of functional protective and safety equipment
- That HSE training is provided to everyone
- That the premises of the institute is secured
- Identifying the causes of injuries and near-misses
- That defective equipment are labeled as such and repaired, replaced or removed from the Institute's premises as early as possible

Individual Responsibility

Each person must

- · Take responsibility for their safety and that of others
- React when dangerous conditions or actions are noticed
- Report immediately, undesirable incidents such as injuries and near misses. This shall serve the purpose of training or reviewing this manual.

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- Use the prescribed protective equipment
- Ask guestions from the HSE officers if in doubt
- Remember to take immediate counter measures

Health

Air-Conditioning

Everyone has the responsibility of creating a pleasant atmosphere and an enjoyable working condition. Depending on external weather conditions, number of people in a room, type and number of heat generating equipment in a room, occupants shall agree on an accepted temperature level. The HSE officer could be contacted if unsure of what the temperature level should be.

Noise Pollution

We shall all ensure that

- · we work in a way which prevents unnecessary noise
- we insulate sources of noise (e.g. using a headphone when playing music from a laptop)
- we use low-noise methods wherever possible
- if noise is unavoidable, we ensure that people who will be affected by the noise are foretold

Air Pollution

Primary sources of air pollution include welding, cutting/sawing of timber, sweeping of dust and exhaust fumes from generators and vehicles.

These particles or fumes could be toxic if breathed in.

We should observe the following:

- that welding is carried out as far as possible in the open air
- smoking is prohibited everywhere within the premises
- a vacuum cleaner shall be preferred to a sweeping broom
- burning of bushes or refuses is not allowed within the Institute's premises and lodge

Electrical Hazards

It shall be ensured that

- electrical systems are checked regularly and faults reported and repaired immediately
- · alarms, fire extinguishers, smoke detectors are properly maintained
- that all electrical appliances are switched off after use

The Environment

Protect the environment

Let us remember our descendants and save today for a safe tomorrow.

Let us avoid

- wasting gas and electricity
- the unnecessary use of energy, water and other resources

We should

· close all windows and doors when the AC is on

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- reduce waste and prefer the use of recyclable products
- · turn off computers and lights when not in use
- use energy saving bulbs

Oil and Chemicals

Preventing leaks of oil and chemicals to water, soil or the sewage system is important. Oil and diesel oil tanks must be fitted with drip trays. Containers must be kept closed and be positioned away from drains.

House keeping

Each person is responsible for the following:

- Ensure things are kept in the right place as there is a place for everything
- Keeping immediate vicinity clean and tidy
- Ensuring that immediate vicinity creates a good impression
- · Removing all forms of waste to the designated places
- Keeping all path and evacuation routes free from obstruction
- Parking vehicles in the designated area
- Keeping rest rooms clean after use
- Watering the flowers in front of their rooms

Safety

- Work responsibly and take no unnecessary risk
- Your safety takes priority over work targets
- Use the right tool when doing any job
- Show respect for chemicals, electricity, compressed air and height
- Raise and discuss problems with HSE officers

Road safety within the premises

Speed limits for all vehicles within the premises shall be a maximum of 30km/hr

Drivers shall always give way to pedestrians

Generators and Electrical Installations

All electrical installations must be carried out by a certified electrician.

Switchboards and the like which unauthorized personnel are not permitted to access must be locked or closed in such a way that a tool is required to open them.

Only authorized personnel are permitted to work on electrical installations and generators.

Alcohol and Narcotics

No person may under any circumstance enter the Institute's premises or lodge under the influence of narcotics or take narcotics while on the Institute's premises or lodge.

It is also not permitted to possess and/or publicly display alcoholic beverages, cigarettes and narcotics.

However, during events where the permission to serve alcohol has been obtained, consumers shall do so responsibly.

It is prohibited to drink and drive. Fire Safety

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Fire is a **chemical reaction** involving rapid oxidation or burning of a fuel. It needs three elements to occur: fuel, oxygen and heat.

There shall be scheduled Fire drills. The drill would be used to find problems before a fire happens and necessary changes would be made. All workers who might need assistance during a fire should be identified during fire drill.

In the case of a fire, do one of the following: alert, rescue, evacuate or extinguish

Alert

Raise an alarm

Rescue

Save yourself first. If it is safe, lend a helping hand to anyone at risk.

WHAT TO DO IF SOMEONE CATCHES ON FIRE

if you should catch on fire:

STOP - where you are

DROP - to the floor

ROLL - around on the floor

this will smother the flames, possibly saving your life.

Just remember to STOP, DROP and ROLL.

If someone else catches on fire, smother flames by grabbing a blanket or rug and wrapping them up in it. That could save them from serious burns or even death.

Evacuate

HOW TO EVACUATE A BURNING BUILDING

- The last one out of the room should not lock the door, just close it. Locking the door hinders the search and rescue efforts.
- Proceed to the muster point as outlined in the drill.
- Stay low to avoid smoke and toxic gases. The best air is close to the floor, so crawl if necessary.
- If possible, cover your mouth and nose with a damp cloth to help you breathe.
- If not on the ground floor; do not panic descend stairs slowly and carefully.
- Once in the stairwell, proceed down to the ground floor. Never go up.

Once outside the building, report to the muster point so that a head count can be taken.

WHAT TO DO IF TRAPPED IN A BURNING BUILDING

If you are trying to escape a fire, never open a closed door without feeling it first. Use the back of your hand to prevent burning your palm. If the door is hot, try another exit. If none exists, seal the cracks around the doors and vents with anything available.

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Use wet towels to seal the space under the door and prevent the entry of smoke. Cracks around the door can be sealed with masking tape if necessary.

If trapped, look for a nearby phone and call someone, giving them your exact location.

If breathing is difficult, try to ventilate the room.

If on an upper floor and your window is of a type that CANNOT be opened, DON'T break it out-you'll be raining glass down on rescuers and people exiting the building. If you can't contact someone by phone, wave for attention at the window. Don't panic.

Extinguish

Try to put out the fire.

WHEN NOT TO FIGHT A FIRE

do not fight a fire;

- If the fire is spreading beyond the spot where it started
- If you can't fight the fire with your back to an escape exit
- · If the fire can block your only escape
- If you don't have adequate fire-fighting equipment

HOW TO FIGHT A FIRE

Use a fire extinguisher

Remember the acronym "P.A.S.S."

- PPull the Pin.
- **A**Aim the extinguisher nozzle at the base of the flames.
- **S**Squeeze trigger while holding the extinguisher upright.
- SSweep the extinguisher from side to side, covering the area of the fire with the extinguishing agent.

Know the locations of the fire extinguishers in your work area.

REMEMBER:

- Should your path of escape be threatened?
- Should the extinguisher run out of agent?
- Should the extinguisher prove to be ineffective?
- Should you no longer be able to safely fight the fire?

...THEN LEAVE THE AREA IMMEDIATELY!

HOW TO PREVENT A FIRE GOOD HOUSE KEEPING

The golden rule of good house - keeping states that "everything has a place and there is a place for everything"

Fire accidents could occur from burning candles, faulty electrical appliances and cooking appliances. These are few tips on how to prevent fire from these sources.

Candles

Always use a proper candleholder, and keep candles away from draughts, or anything flammable.

If you fear that you may sleep off while the candle is on, put out the candle.

Electrical Installation

At night, before you go to bed, unplug all electrical items not in use.

Do not leave electrical appliances on stand-by while going to bed.

Always use correctly rated fuses in all electrical appliances.

Avoid using multi-way plug socket adapters, if possible. You may overload the socket and it may overheat.

Never run electrical cables under carpets, rugs or mattress.

Always use a proper ironing board and turn off the iron after use. Make sure the iron is left to cool on a heat resistant surface away from curtains, carpets and anything else that may catch fire.

Always switch off hair strengtheners/curling tongs after use and leave to cool on a heat resistant surface away from curtains, carpets and anything else that can catch fire.

Cooking Appliances

Never leave the stove or gas burner unattended to.

Keep electrical cables, towels, cloths, loose clothing and anything else that may catch fire away from stove or gas burner.

Keep the stove or gas burner clean – a build-up of fat and grease can easily catch fire.

Implementation Plan (2020 - 2024)

Keep your toaster clean, free of crumbs and away from curtains, kitchen rolls and anything else that could catch fire

Never put anything metallic inside your microwave.

Never attempt to sterilize dish cloths or sponges by heating them in the microwave.

Keep handles of pans turned away from other stoves or gas burners.

Make sure the stove or gas burner is turned off when you have finished cooking.

Avoid cooking if you are tired, have been drinking alcohol or are taking a medication that can make you drowsy.

Never fill a pan more than a third full with fat or oil.

If the oil has started smoking turn off the heat and leave the oil to cool down, otherwise it may catch fire.

Part II

Road Safety

We shall ensure the safety of the vehicle and its occupants, as well as ensure the safety of every other road users including pedestrians.

The management shall ensure that all vehicles are in good working condition and serviced regularly. A well-trained driver shall also be provided.

The following shall be observed on the road:

- The vehicle is not authorized to move until everyone has been seated and has engaged his or her seat belt
- The doors must be closed before the vehicle moves.
- It is not permitted for anyone to stand while the vehicle is moving
- The vehicle shall not be allowed to carry more passengers than its capacity
- The driver shall keep to speed limits
- The driver shall drive responsibly and be considerate to other road users
- It is not permitted to open the windows while the vehicle is moving or allow hawkers to run after the vehicle. Should a passenger of the vehicle need to buy anything along the road, the driver shall be instructed to find a safe place to park
- There shall be no indiscriminate littering of refuse on the vehicle. All refuse must be put in a waste basket provided
- If any non-compliance is noticed, the driver or the passenger(s) involved shall be cautioned or reported to a HSE officer for proper action.