UNIVERSITY OF ENERGY AND NATURAL RESOURCES

STRATEGIC PLAN

2016 – 2026 (Abridged Version)

We will create an enabling environment to enable the University to realise its vision and mission in a cost-effective and proactive manner

EXECUTIVE SUMMARY

The Strategic plan provides a framework for the realisation of institutional goals and objectives. It proposes the introduction of new programmes and establishment of campuses, in line with the multi-campus mandate of the institution, in a logical and chronological manner. The plan responds to stakeholders' expectations for top class tertiary education, in the light of weak financial and other challenges on student enrolment and programme quality, inadequate logistical and support services as well as weak relationship of tertiary institutions with employers of labour and absence of entrepreneurial development skills in core programmes.

Broad thematic areas that formed the basis of the Strategic Plan include Human Resource Development; Teaching, Learning and Research Excellence; Physical infrastructure Development; Internationalization; Quality Assurance; Information Communication Technology; Environmental Safety; Maintenance and Sanitation; Ancillary Services; Financial Resource Mobilization; and Governance and Leadership. A major component of the plan is the financial requirements and the strategies for meeting these strategic objectives.

The Plan is split into three phases (immediate 2016 - 2020, medium 2020 - 2023 and final 2023 - 2026) and provides clearly attainable goals and measurable indicators with time frames and responsible actors.

The ultimate aim of the Plan is to raise the level of the University to achieve its vision and mission in a cost-effective and proactive manner. The support of all sections of the University from students, Junior Staff to the Council is assumed and should be seen as paramount to the achievement of the vision and mission of a young University tasked with generating, advancing and applying knowledge in energy and natural resources sciences.

SECTION 1: OVERVIEW OF THE UNIVERSITY

1.1 Introduction

The University of Energy and Natural Resources, Sunyani, Ghana, was established by an Act of Parliament, Act 830 in 2011 to provide man power needs in the energy and the natural resources sectors. The motto of the University is "knowledge, integrity, impact". The University provides an environment for training students with a high sense of professionalism, committed to problem-solving, active in community partnership and who approach their work with integrity. The University thus sees it essential to develop a system that would hold both students and staff accountable to a high degree of trust, especially on academic and social matters in the life of the community.

The Vision of the Statement is "*to become a world-class institution for generating, advancing and applying knowledge in energy and natural resource sciences*." This statement succinctly describes the long term focus and expectations of the University.

The Mission Statement is "*to promote the development of human resources and skills required to solve critical energy and natural resources challenges of society and undertake interdisciplinary academic, research, and outreach programmes in engineering, science, economics and environmental policy*".

1.2 Campuses and Sites of the University

In consonance with Act 830 (2011), the Plan envisages Sunyani as the site for the Central Administration, the School of Natural Resources and the Graduate School; Nsoatre is expected to host Schools of Science and Engineering, with Dormaa Ahenkro hosting the School of Agriculture and Technology and the School of Geosciences. Special community-assisted/financed Constituent Schools shall be established at Kenyasi No 2 and similar areas on demand basis. Distance learning and special study centres are to be sited during the Plan period in selected areas approved by the Council. The University would also have four field training stations in Mim, Brosankoro and Nchiraa for the Agriculture and Forest Resources Management students and at Bui for engineering students.

1.3 Strategic Trusts and Planning Process

The Ghana Shared Growth Agenda (GSGDA II) 2014-2017 clearly identifies seven Thematic Areas. Three of these thematic areas are directly relevant to the University. These are:

- Accelerated Agriculture Transformation and Sustainable Natural Resource Management;
- Oil and Gas Development; and
- Human Development, Productivity and Employment.

Consequently, programmes, activities and actions of the University shall aim at ensuring that the expectations spelt out in GSGDA and other national policies and directions are fulfilled.

The University with her graduates known as "Technologians" shall create and innovate through partnerships with industries, companies and other stakeholders to utilize the services of students in the design, production and assembly of energy efficient products.

This plan is therefore to:

i. align institutional vision and mission with national development agenda;
ii. build and enhance new paths of discovering excellence in all spheres of UENR;
iii. increase and leverage institutional investments in activities that promote external support and financial investments;
iv. maintain the breadth and rich variety of the academic enterprise, while maximizing the potential for interdisciplinary synergy;
v. promote adequate dialogue among stakeholders in the ownership of the strategic plan;
vi. provide a framework for achieving the institutional vision and mission;
vii. provide a framework for making sustainable progress and achieve competitive advantage;
viii. set objectives and strategies for achieving results, and
ix. ensure overall benefit to the economic and sustainable growth of Ghana and its people in line with national development agenda and operating policies on tertiary education.

The evidence based planning model was adopted in formulating this strategic plan. The model allows for a comprehensive situational analysis that informs the decision maker as to the objectives and strategies to pursue. The processes adopted included the following:

1. Situational analysis;
2. Objective setting and strategy formulation;
3. Developing implementation schedule;
4. Submission of draft to School Boards and Academic Board, and then to Council;
5. Council Commissioned Review of Draft by External Consultant(s);
6. Submission of final report incorporating comments of Consultants to Council; and
7. Council's approval and promulgation.

The Plan period is put into 3 interlinked phases, namely:

Short Term	2016/2017-2019/2020 (Four Academic Years)
Medium Term	2020/2021-2022/2023 (Three Academic Years)
Long Term	2023/2024-2025/2026 (Three Academic Years)

The plan envisages the introduction of **Twenty-six (26)** new programs across 3 campuses over the first 4 years of the plan. The remaining 6 years of the 10 year-plan will be used to assess thoroughly, make changes as essential, consolidate the pioneering status of UENR's unique programmes and add thirty-one (31) new and complementary ones. This will bring the total number of undergraduate programmes by the end of the 10-year plan period to fifty seven (57). The Plan, again, envisages the introduction of postgraduate programmes to provide opportunities for graduate training.

SECTION 2: SCOPE AND FOCUS

2.1 Strategic Posture

Tertiary institutions stand at a strategic inflection point; a point at which market dynamics, employers and customer preferences, global trends and economic realities represent perfect conditions for the University to acquire market dominance by leading the new direction in the tertiary education landscape. Thus, the growth of UENR is critically dependent on how well it understands the developments in its environment and evolves strategies in response to these. In essence, this plan addresses the strategic imperatives that the University must focus on, being academic, administrative and infrastructure, to ensure that it carves for itself a unique identity in the tertiary domain. It identifies the key issues that its strategies should address through an in depth analysis of all parameters that have an implication for the University's success – its internal capacities, its operating environment, its organizational culture and its aspirations. The over-riding objective is the actualization of our Mission, Vision and Core Values through rigorous implementation of these actions. During the period, the Strategic Posture of the University will include;

i. enhanced capacity of Faculty and administrative support staff;

ii. provision of student/client-focused quality academic programmes, backed by superior customer service towards excellent learning outcomes;

iii. building attractive physical structures with modern facilities for teaching, learning and research; and

iv. building of entrepreneurial skills and strong industrial-based attachment schemes in partnership with industries and other stakeholders.

2.2 Strategic Mandate

The University shall provide an environment for training students with a high sense of professionalism, committed to problem-solving, active in community partnership and who approach their work with integrity. The University thus sees it essential to develop a system that would hold both students and staff accountable to a high degree of trust, especially on academic and social matters in the life of the community.

2.2.1 Vision Statement

The University aspires "*to become a world-class institution for generating, advancing and applying knowledge in energy and natural resource sciences*." This statement is succinct and describes exactly our long term focus and expectations.

2.2.2 Mission Statement

The primary mission is "*to promote the development of human resources and skills required to solve critical energy and natural resources challenges of society and undertake interdisciplinary academic, research, and outreach programmes in engineering, science, economics and environmental policy*". The University sees it as essential towards the achievement of its vision and the promotion of mankind.

2.2.3 Core Values

The internal and external conduct of the University is guided by our core values that underpin the hallmark of our institutional culture as an institution of higher learning. These values shall guide the University to realise its vision, mission and the accompanying strategic objectives.

Promote innovation, creativity, freedom of thought and creative expression.	Operate with integrity, commitment and transparency.	Promote conservation of energy and the environment.	Establish partnerships with stakeholders in skills, knowledge generation and application.	Responsive to the needs of our students and partner communities.	Promote and exemplify sustainability concepts across all University programmes and courses.

SECTION 3: SITUATIONAL ASSESSMENT

3.1 Situational Assessment

This Section summarizes the strengths, weaknesses, opportunities and threats of the University. Information was gathered by using Traditional SWOT analysis at the departmental levels.

Strengths

i. Unique Academic Programmes, and linkage with energy and entrepreneurial skills;
ii. Functional French enhances competitiveness for international engagement;
iii. Quality and Motivated Full-time faculty;
iv. Strong interaction among faculty and students;
v. Curricula-enhanced collaboration with Industries; and
vi. Strong legal framework and mandate as national energy and natural resource institution.

Weaknesses

i. Inadequate government funding;
ii. Inadequate Physical Infrastructure;
iii. Underdeveloped Critical ICT Infrastructure;
iv. Inadequate Human Support Services and Resources;
v. Lack of institutional networks; and
vi. Inexperienced academic staff for effective academic administration and mentoring.

Opportunities

i. Strategic Location;
ii. Strong interest and enthusiasm by Traditional rulers;
iii. Desire and Need for Higher Education;
iv. Need and Market for Postgraduate Programmes;
v. Consultancy Services in Key Areas;
vi. Off-Campus Study and Exchange Programmes for Staff and Students;
vii. Multi-campus Experience;
viii. High Demand for Engineering Graduates;
ix. Avenues for Local and International Collaboration; and
x. Global Interest in Energy and Natural Resource Issues.

Threats/ Challenges

i. Reduced Public Funding of Higher Education in Ghana;
ii. Risk of Losing Key Faculty to competing institutions with high IGR;
iii. Growing Competition from Public and Privately Owned Universities; and
iv. Weak Corporate Image of the University.

3.2 Thematic Areas

Ten thematic areas of the Strategic Plan were regrouped into 5 broad, not necessarily mutually exclusive as follows:

a. Academic excellence in Teaching, Learning, Research and Outreach;
b. Infrastructure to support Teaching, Learning, Research and Outreach;
c. Bringing the Operation of the University to world class status (such as through the pervasive deployment of ICT);
d. Welfare of staff and students; and
e. Funding (as a cross cutting issue).

3.3 The University Strategic Objectives

The strategic objectives are guided by various government policies, including the provisions in the Ghana Shared Growth Development Agenda II, operating policies on tertiary education within the broad framework of National Education priorities and constitutional provisions. It recognizes the need to focus on its core mandate, be competitive, entrepreneurial and ultimately earn a unique identity. The key strategies are to:

i. Ensure availability of critical human resources to achieve excellence;
ii. Develop and promote a culture of excellence;
iii. Improve infrastructure and operations to international standards;
iv. Promote and protect staff and student well-being; and
v. Ensure short and long-term financial sustainability standing of the University.

After a careful situational assessment of the external and internal operating environment, the University identified 5 Strategic Objectives. These objectives can best be described as critical success enhancing factors essential to the realisation of its ambition. They represent the first step in translating the broad strategic direction provided by the vision into actionable programmes in the implementation process.

1. CRITICAL HUMAN RESOURCES	• Ensure the availability of critical human resources to achieve excellence in teaching, learning, research and outreach.
2. CULTURE OF EXCELLENCE	• Develop and promote a culture of excellence.
3. INFRASTRUCTURE AND OPERATIONS	• Improve the infrastructure and operations to international standards.
4. STAFF AND STUDENT WELL-BEING	• Promote and protect staff and student well-being.
5. FINANCIAL PERFORMANCE	• Ensure short and long term financial sustainability standing of the University.

SECTION 4: STRATEGIC FRAMEWORK

4.1. Strategic Outcome

The key issues to be addressed by this plan include:

- Response to stakeholders' expectations for top class tertiary education;
- Inadequate full time faculty to meet the projected growth in student numbers and disciplines;
- Weak financial base for major capital projects to accommodate anticipated expansion; and
- Traditionally weak relationship of tertiary institutions with employers of labour;

4.2 Strategic Objectives and Activities

OBJECTIVE 1: **Critical Human Resources**

Ensure the availability of critical human resources to achieve excellence in teaching, learning, research and outreach.

Both internationally and locally, human resources play a pivotal role for effective realisation of institutional goals and objectives.

a) Build the capacity of faculty and staff

1. increasing the number of new faculty with specialization in identified broad areas by the end of 2016;
2. minimizing staff turn-over and increase level of competitiveness of staff seeking appointment with UENR;
3. upgrading the skills / competencies of all faculties to deliver skill-oriented, modularized programmes by September 2016 and to ensure at least 50 per cent of faculty qualified to teach Masters Level programmes by 2017; and
4. enhancing teaching and examination skills of faculty;
5. developing the competencies of all teaching and research staff to reach 80 per cent in their respective areas of competence and achieve reliability in performance;

6. increasing adjunct faculty numbers by 10 per cent by December 2016 and maintain it thereafter from Industry and Public Practitioners;
7. increasing the number of senior members (non-academic) to proportionate levels to enhance academic and non-academic administration and to recruit skilled support and allied staff as may be appropriate;
8. minimizing staff turn-over and increase level of competitiveness of staff seeking appointment with UENR; and
9. enhancing research and administrative skills of non-teaching faculty in IT.

b) Enhance staff performance in Teaching, Research and Service Delivery

1. attaining excellence in learning innovation by increasing the effectiveness of teaching and learning;
2. to have in place library facilities with excellent resources and collections to support the training, research and consultancy by 2016;
3. ensuring research is functional, wide-embracing and supportive of teaching and learning;
4. ensuring that the Graduate School facilitates prompt attainment of our research agenda;
5. creating a special Research Centre to facilitate scholarship, teaching and IGF;
6. achieving a target of at least one refereed publication (journal or conference) per faculty member per year from September 2016;
7. achieving planned target number of academic programmes to reach the minimum projected number of and that these are well patronised;
8. developing modules for all courses to support other referenced materials;
9. upgrading teaching facilities;
10. achieving an intake of at least 50 students per programme in 2016/17 on new programmes introduced for an academic year, increasing annually by 20 till end of planning period;
11. Striving to achieve at least 20 per cent market share of the nation's internal training requirements in engineering and the natural resources management by 2020;

12. utilizing fully the 10 per cent foreign-students quota allowed by NCTE per year;
13. starting distance learning programmes in at least 4 regions; and
14. creating a Consultancy Department and contribute not less than 25 per cent of IGF to support the University's development activities.

OBJECTIVE 2: Culture of Excellence

Develop and promote a culture of excellence.

As a new public university in Ghana, the responsibility of producing the next generation of thought leaders in science, technology and management of energy and natural resources as well as be a centre of excellence in these critical areas is one that we embrace through developing and promoting innovative teaching, learning methods and research. Realising these must be supported by the relevant resources that enable the University to meet the basic international standards.

a) Promote excellence in teaching, learning and research

1. improving teaching-learning environment;
2. enhancing capacity to accommodate new programmes and attendant student increase;
3. creating distance learning campus and liaison office in Accra;
4. improving administrative support delivery under one roof;
5. improving energy supply to all sections of the University;
6. organising workshops, conferences, seminars etc;
7. ensuring most UENR students are readily accommodated;
8. facilitating the provision of comfortable accommodation for staff as required incentive;
9. caring for the health needs of students, staff and community;
10. enhancing access to portable water at all times;
11. enhancing mobility of staff and students;

12. improving physical well-being of community and engage in recreational activities and sports competitions;
13. improving campus security;
14. reaching 100 per cent reliability in the provision of transport facilities;
15. enhancing image of the institution;
16. reducing the time lapse for the initiation of the process of implementation of management decisions to not more than 2 days;
17. ensuring main site (Nsoatre) is appropriately built and functional; and
18. developing new and upgrading existing physical structures at Sunyani campus.

b) Promote excellence and internationalization of UENR

1. ensures that UENR is internationally linked and enjoys world-wide recognition;
2. establish functional MoUs with international institutions;
3. aggressive recruitment of foreign students through educational fairs, commissioned recruitment, open centres in selected West African countries e.g. Nigeria and Sierra Leone; and
4. develop joint research proposals and programmes.

c) Enhance the quality, visibility and employability of UENR graduates

1. ensuring and enhancing consistent academic and service outcomes;
2. exposing UENR positively through industrial attachments;
3. ensuring quality in all activities; and
4. training graduates with an entrepreneurial touch that can create jobs.

d) Develop and promote a structure and leadership style consistent with the Act establishing the University (Act 830) and in line with current best practices.

1. developing governance structure consistent with the multi-campus, with clearly defined matrix;
2. ensuring responsible, accountable and transparent governance structure; and
3. complying with provisions of ACT 830 (2011) and Statutes.

OBJECTIVE 3: Infrastructure and Operations

Improve the infrastructure and operations to international standards.

The value the University seeks to create can only be realised through the improvement in the infrastructure as well as the strengthening of our operations to international standards. To be truly world-class requires that we build the requisite infrastructure to harness the contribution of both academic and non-academic stakeholders through ensuring enhanced operations of the University.

a) Build and improve physical structures, logistical and support services

1. construction of hostels in each campus to accommodate at least 7% of students;
2. construction of adequate lecture halls, laboratories and libraries as well as ICT centres on each campus;
3. construction of well equipped clinics in all campuses;
4. construct bore holes to enhance access to potable water all times;
5. providing comfortable accommodation of staff as required incentive;
6. caring for the health needs of students, staff and community;
7. enhancing access to portable water at all times;
8. installing Fire Safety Systems including hydrants, alarms, fire tender; and
9. constructing fences and incorporate CCTV systems;

b) Ensure over-arching role of ICT in all operations of the University

1. development and effective management of ICT policy;
2. ensuring timely and efficient release of examinations and electronic timetable [*software effectiveness*];
3. enhancing effective access to IT services from all campuses and schools [*software appropriateness*]; and
4. using ICT as a teaching tool [*infrastructure, internet connectivity, e-Learning tools*].

OBJECTIVE 4: Staff and Student Well-Being

Promote and protect staff and student well-being.

The University recognizes the importance of staff and student well-being and how it impacts on the broader teaching, learning and research processes.

a. Promote Healthy Work Environment

1. ensuring compliance with existing national legislations [Labour Law, *waste mgt, Act 715*];
2. maximizing potential of solid and liquid waste [*recycling systems*]; and
3. Ensuring green environment [*grounds unit, secured environment*].

b. Ensure decent and well secured Environment

1. protecting staff and students from physical assaults and burglary [*surveillance*];
2. enhancing student academic, residential and social matters [*student affairs*];
3. enhancing employability of our graduates [*alumni and industry linkages*]; and
4. moral and religious excellence[*worship centres and pastoral services*].

OBJECTIVE 5: **Financial Performance**

Ensure Short and long term financial sustainability standing of the University.

It has become abundantly clear over time that the reliance on Government subsidy has become a liability particularly in difficult economic times. The University must therefore rise above the economic uncertainties to achieve greater financial self-reliance that can sustain its programmes and to ultimately shape its future.

a. Achieve greater financial self-reliance that can sustain its programmes and to ultimately shape its future.

1. increasing financial resource base [e.g. fee-paying programmes*, fund raising, endowment fund and markets*];
2. creating a Business Development Centre [*to increase IGF through development projects*];
3. ensuring high standards of financial control, probity, accountability and reporting [*risk management documents, use of IT*];
4. ensuring parity in government allocation of resources [*priority setting, lobbying/advocacy*]; and
5. achieve professionally-managed financial reserves of at least GHC 6.40 million each year from 2016 to 2020 [*reserve fund, endowment*].

4.3 Implementation and Monitoring

It is essential that progress towards the realization of the University's vision should be assessed on periodic basis. The relevance of the specific strategies and supporting actions needs to be examined against the changes that will occur in the University's operating environment and the challenges that it will face as it works towards the realization of its aspirations. Progress towards the completion of tasks in the action plan needs to be reported and assessed regularly. It is therefore recommended that a process of semi-annual reviews be established, to ensure that the aims and goals as stipulated in this document are achieved and remain pertinent to the prevailing situation.

Such a review will mimic the original planning session. It will assess each of the outputs of the original output to establish whether the findings still hold true in the prevailing context and to what extent new issues have a bearing on the strategic direction of the University.

Management must also receive reports from responsibility holders on progress in executing their actions and develop strategies to overcome any challenges that they may encounter. The outcome of these reviews will inform the actions to modify, improve and enhance the effectiveness of the efforts to achieve the University's vision.

It is believed that such a process will ensure that there is short-interval control over the plan's execution and that operational priorities will always be accommodated at all stages. Thus, the periodic monitoring at the institutional and departmental levels shall provide feedback for appropriate actions to be taken to ensure compliance and achievement of the desired results. These will include the systematic documentation, analysis and reporting of performance, in key result areas (core mandate) and conducting key stakeholder satisfaction surveys and bi-annual open workers fora to assess overall performance and to solicit suggestions for performance improvement.

4.4 Monitoring Tools

Management Information System (MIS) will be developed at both the institutional and departmental levels to facilitate data capturing, processing, storage and retrieval to guide effective management decision making. Comprehensive performance indicators for each key result area will be developed by departmental heads to facilitate the building of a good database in the management information system.

Mandatory unit and individual work planning will be instituted and enforced from the 2016/2017 academic year along with time management systems and output-based performance and reward systems. Furthermore, the Strategic Plan Monitoring section of the Institutional Quality Assurance Unit shall be required to translate the strategies and actions essential to achieve these into a template with both qualitative and quantitative parameters. The Plan Monitoring sheet shall indicate the specific objective, strategies and actions under these and whether the tasks had been performed. The template and its outcomes shall be reviewed on annual basis.

SECTION 5: STRATEGIC IMPLEMENTATION

With an 'open-door' policy and the introduction of participative management as prerequisites for realizing the vision and mission of UENR, strenuous efforts must be made to avoid the grape vine and harness the energy of all staff towards productive work. In ensuring acceptable culture for the University, management must exhibit 'leadership by example' and adopt a facilitating approach in bringing out the hidden talents in all employees. Specifically, staff shall be empowered to act and accept responsibility for their actions. The conditions required for this new culture to produce these desired results are those that will reward desired attitude and performances and discourage dysfunctional ones.

While the strategic implementation plan provides expected outcomes on annual basis, it is imperative to note that cumulative attainment of goals may be more realistic in view of the historical and erratic nature of government funding sources.

It is essential therefore that progress towards the realization of the University's vision should be assessed on a periodic basis. The relevance of the specific strategies and supporting actions need to be examined against the changes that will occur in the University's operating environment and the challenges that it will face as it works towards the realization of its aspirations. Progress towards the completion of tasks in the action plan needs to be reported and assessed regularly.

The possibility of plans going astray for whatever reason (internal or external) must be envisaged for appropriate contingency plans to be put in place. We would anticipate:

a. Delays in raising external finance or only raising a proportion of the required amount which has the potential of terminating the component of the plan relying on such resources;
b. Undershooting of student numbers projections due to staffing unavailability and infrastructural challenges; and
c. Delays in completing major capital expenditure programmes such as persistent delays in release of funds to contractors for work done.

5.1 Key Performance Indicators (KPI)

The University has identified a set of performance indicators in order to effectively monitor the achievements of the Strategic Priorities. Also included are a set of metrics which will be developed with the relevant baselines to support the progressive monitoring of the implementation process.

Objective 1: Ensuring the Availability of Critical Human Resources to Achieve Excellence

Key Actions	Responsibility	Target	Time Frame	Monitoring Indicators	Expected Result
a) Building the Capacity of Faculty and Staff to Achieve Excellence					
1. Recruit new faculty	Vice Chancellor University Council	50 full time	2016-2019	Number of faculty	50 new lecturers with relevant specialization recruited.
2. Recruit faculty with PhDs and train existing faculty	Vice Chancellor Management Committee	50% of total faculty	2016-2019	Percentage of faculty with PhDs	50% of faculty with PhD
3. i. Arrange attachment & exchange programmes with sister institutions for faculty and staff. ii. Continuous Training in IT for teaching and learning	Pro VC	20 All faculty and staff	2016-2019 2016-2019	Number of faculty with upgraded skills &/or competencies	Skills/competencies of faculty, and senior staff upgraded.
4. Provide faculty with ICT linkages	Management Committee	40	2016	Number of faculty with ICT access	Latest ICT accessible to faculty

5. Embark on continuous staff training and development	Pro VC Deans Registrar	All support staff	2016-2021	Number of support staff trained	Competencies of support staff developed.
6. Recruit adjunct faculty	Vice Chancellor	20	2016-2021	Number of adjunct faculty	20 adjunct faculty members recruited
b) Enhance Staff Performance in Teaching, Research and Service Delivery					
1. Introduce SMART and Use of LCD Technology	Vice Chancellor	Staff able to use facilities	2016-2018	a) Number of faculty b) Number of facilities	a) All Staff b) All lecture rooms
2. To link Teaching With Research	Pro VC	All faculty	2016-2019	Publications and Students Assessments	At least 50% of faculty
3. Main library constructed and well equipped	Vice Chancellor	All Campuses	2016-2018	Reference books listed per course	Ease of access to reference materials
4. Graduate School Functional	Pro VC	All Departments	2016/2019	Number of graduate programmes	At least 50% of programmes with MSc/PhD
5. Establish Research and Consultancy Centres	Pro VC	All staff	2016-2021	Number of completed research projects	Projects contribute 25% to IGF

Objective 2: Develop and Promote a Culture of Excellence

Key Actions	Responsibility	Target	Time Frame	Monitoring Indicators	Expected Result
a) Promote Excellence in Teaching, Learning and Research					
1. Introduce SMART and Use of LCD Technology	Vice Chancellor	All Staff Competent in use of facilities	2016-2018	a) Number of faculty b) Number of facilities	a) All Staff b) All lecture rooms
2. To link Teaching With Research	Pro VC	All faculty	2016-2019	Publications and Students Assessments	At least 50% of faculty
3. Main library constructed and well equipped	Vice Chancellor	All Campuses	2016-2018	Reference books listed per course	Ease of access to reference materials
4. Graduate School Functional	Pro VC	All Departments	2016-2019	Number of graduate programmes	At least 50% of programmes with MSc/PhD
5. Establish Research and Consultancy Centres	Pro VC	All staff	2016-2021	Number of completed research projects	Projects contribute 25% to IGF
b) Promote Excellence and Internationalization of UENR					
1. Develop Standard MoU	Pro Vice Chancellor	World Class Institutions and Companies	2016-2019	a) Number of external collaborating institutions b) Number of programmes c) Number of beneficiary staff & local, foreign students	UENR enjoys worldwide recognition

c) Enhance the Quality, Visibility and Employability of UENR Graduates					
1. Enhance Quality of Delivery of QA Unit	Pro Vice Chancellor	Main Campus	2016-2017	a) Category of Appointments b) Types and number of Monitoring Tools c) Number of Assessments Done	Functional QA Unit and Services
2. UENR develops presentation format	Pro Vice Chancellor	All Faculty	2016-2017	Presentations of uniform format; Staff competent in its preparation and use; number of presentations	Presentations project image of institution (quality and frequency)
3. Programmes with strong entrepreneurial content	Vice Chancellor	All Programmes	2016-2018	Number of Graduates with skills; number of jobs created by graduates; assessment by employers	UENR students equipped with skills to create employment
d) Develop and Promote a Structure and Leadership Style Consistent with the Act Establishing the University (Act 830) and in line with Current Best Practices					
1. Participatory Governance	Vice Chancellor Management Academic Board	All campuses	Plan Period	a) Compliance with Statutes, including appointments and statutory meetings b) Supporting Policy documents c) Non statutory Meetings with	Transparent and Effective Governance

				various groups c) Mentoring and Succession Plan d) Leadership training and workshops	
2. Compliance with Act 830, and Strategic Plan	Vice Chancellor Management Academic Board	All campuses	Plan Period	a) Abridged provisions of Act and Statutes b) Workshops on Statutes, work plans etc c) Review of Strategic Plan performance	Healthy financial standing

Objective 3: Improve the Infrastructure and Operations to International Standards

Key Actions	Responsibility	Target	Time Frame	Monitoring Indicators	Expected Result
a) Build and Improve Physical Structures, Logistical and Support Services					
1. Construct Modern Lecture Halls and Conference Facility	Vice Chancellor	All Campuses	2016-2021	a) Number of lecture halls b) Number and capacity of conference facility	Campuses with state of art lecture halls and meeting facilities
2. Construct Staff Bungalows	Vice Chancellor	All campuses	2016-2021	Number, sizes and spread of bungalows	All campuses with staff bungalows
3. Construct ICT-linked Distance Learning Centres	Vice Chancellor	Selected sites as per	2016-2018	Number of Centres and Programmes on offer	Functional and income generating (cost effective)

		Strategic Plan			Centres
4. Develop Campuses	Vice Chancellor	All Campuses	2016-2019	Facilities on campuses as per Plan (e.g. road network, boreholes etc)	All campuses with conducive environment
b) Ensure Over-arching Role of ICT in all Operations of the University					
1. Develop ICT Policy and Make Necessary Appointments	Vice Chancellor	Sunyani	2016-2017	a) Policy in place b) Recruitment as per Plan c) ICT Committees set up	ICT Unit effectively managed
2. Enhanced Teaching Pedagogy with ICT	Pro-Vice Chancellor	All campuses	2016-2018	a) Number of ICT Leaning Platforms b) Number of Faculty using tools c) ICT infrastructure – hardware and software in place	ICT based pedagogy functional
4. Develop Campuses	Vice Chancellor	All Campuses	2016-2019	Facilities on campuses as per Plan (e.g. road network, boreholes etc)	All campuses with conducive environment
5. Upgrade Main Administration Block Sunyani Campus	Vice Chancellor	Sunyani Campus	2016-2017	Administrative Block, office numbers and space, alternative power source etc	Modern Administrative Block
1. Develop ICT Policy and Make Necessary Appointments	Vice Chancellor	Sunyani	2016-2017	a) Policy in place b) Recruitment as per Plan c) ICT Committees set up	ICT Unit effectively managed

Objective 4: Promote and Protect Staff and Student Well-being

Key Actions	Responsibility	Target	Time Frame	Monitoring Indicators	Expected Result
a) Promote Healthy Work Environment					
1. Compliance with national legislations	Vice Chancellor Director of Works Legal Unit	UENR	2016-2017	a) Policy on water use b) Policy on waste management c) Workplace Safety Policy c) Components of Disability Act, 2006 (Act 715)	UENR fully in compliance of national legislations
2. Recycling systems and Greening of Environment	Director of Works Department of Environmental Engineering Dean, School of Natural Resources	All campuses	2016-2017	a) Number and type of systems b) Hectarage of 'greening areas' c) Type of landscaping	Serene and healthy UENR environment
b) Ensure Decent and Well Secured Environment					
1. Compliance with national legislations	Vice Chancellor Director of Works Legal Unit	UENR	2016-2017	a) Policy on water use b) Policy on waste management c) Workplace Safety Policy c) Components of Disability Act, 2006 (Act 715)	UENR fully in compliance of national legislations
2. Recycling systems and	Director of Works	All campuses	2016-2017	a) Number and type of systems	Serene and healthy UENR

Greening of Environment	Department of Environmental Engineering Dean, School of Natural Resources			b) Hectarage of 'greening areas' c) Type of landscaping	environment

Objective *5:* Ensure Short and Long Term Financial Sustainability Standing of the University

Key Actions	**Responsibility**	**Target**	**Time Frame**	**Monitoring Indicators**	**Expected Result**
1. Financial and Risk Management Policy Documents and Procedures	Vice Chancellor Director of Finance	Main campus	2016-2017	a) Financial documents available b) Effectiveness of Financial MIS c) Number and frequency of assessments of financial sustainability d) Evidence of use of financial reports	High Standards of Financial Control and Governance
2. Widened financial resource base	Vice Chancellor All Deans Director of Finance	All campuses	2016-2019	a) Market research and reports b) Fee paying programmes developed c) Percentage of Local/Foreign Students d) Number of, and returns from consultancies e) Number of, and returns from lobbying and fund raising activities f) Number and returns from Supplementary Income generating activities	Healthy financial standing

SECTION 6: FINANCIAL IMPLICATIONS

6.1 Costing

The plan envisages costs that may be attributed to programmes development, their accreditation, introduction and consequent implication in staffing increases, infrastructural requirements and facilities to facilitate research, teaching and learning.

It is assumed that:

(a) Government continues to absorb all staff salaries and other entitlements throughout the 10 year plan period;

(b) Funding strategies, other than total reliance on student numbers and government subvention, will be required to ensure that the plan targets are achieved, and

(c) The Council shall entrust the leadership of the institution with the appropriate mandate, including financial responsibility to seek funding and administrative support to carry out its policies to realize the objectives outlined in this plan. This may require lobbying at the highest levels.

6.1.1 Programmes Introduction

The University currently runs programmes in Engineering (Renewable Energy, Electrical and Electronics, Environmental, Mechanical, Computer, Petroleum, Agricultural), Sciences (Mathematics, Statistics, Actuarial, Computer Science, IT, Chemistry), Natural Resources (Natural Resources Management with 6 options, Fire & Disaster, Hospitality, Enterprise and Entrepreneurship) and Agriculture and Technology (Agribusiness, Crop Production, Animal Production, Horticulture). In the first four years of the plan, 27 programmes are envisaged (see Table 1).

The plan makes provision, from the perspective of infrastructure and other social considerations, for the introduction of three key professional programmes. The programmes in Built Environment would include architecture, building services design, construction

technology, and construction management expected to be initiated from the second year of the planned programme and total of 6 by the end of the planned period.

Programmes in the Humanities are to be progressively introduced, with Law (considering mandate and necessity to protect environment and the legal implications) by the 3rd year of the plan.

There is projection for 6 additional science programmes in Biological Sciences, Physics and Medical Sciences from the 2ndyear of the plan. These courses are to pave way for subsequent introduction of Medicine at Nsoatre campus by the 10th year of the plan.

The cost implications are adequately taken care of in infrastructure, capacity building and fund raising strategies.

School / Program	Year 1	Year 2	Year 3	Year 4	Years 5, 6, 7, 8, 9					Year 10	Plan Period
Agriculture	0	0	0	1	1	0	1	1	1	1	6
Built Environment	0	1	1	1	1	0	1	1	0	0	6
Energy	1	1	1	0	0	0	0	0	0	0	3
Engineering	1	0	1	1	0	3	0	3	0	3	12
Geosciences	0	2	0	0	0	1	0	1	0	0	4
Sciences	0	1	2	2	0	1	0	0	0	0	6
Natural Res	2	0	0	0	1	1	0	0	1	0	5
Humanities (Law, Social Sciences, Languages, Arts)	0	2	2	2	1	1	1	1	1	1	12
Medicine and Allied	0	0	0	1	0	0	1	0	0	1	3
Total	**4**	**7**	**7**	**8**	**25**					**6**	**57**

Table 1– Phasing-in of Academic Programmes for the Plan Period

6.1.2 Student Intake and Progression

Related to the programmes phasing is the corresponding increase in student intake. The plan hypothesizes an intake of 1420 in the 2016/17 academic year (year 1), increasing by 20% each year. Table 2 provides summary on student numbers taking into account potential withdrawals and successful completions (graduations). It is projected that admission for regular students in the 10th year will reach 3600, while continuing students will number 8824 bringing with total number of regular undergraduate student population at 12,424. Distance Learning will bring additional 10% of regular intake from the second year of the planned period. Post graduate enrolment would reach about 400 students over the Plan period.

Table 2: Summary of Student Intake over the Plan Period

		Year-1	year 0	year1	year2	year3	year 4	year5	year6	year7	year8	year9	year10
BSc Minimum Student Population	Continuing Regular		154	714	2082	3292	4314	5234	6024	6644	7334	7864	8464
	Continuing Top Up	0	0	0	51	171	120	240	120	240	120	300	180
	New Regular	154	560	1420	1650	2050	2450	2600	2950	3050	3300	3350	3600
	New Top Up EE & others (e.g. CSc)	0	0	51	120	120	120	120	120	120	180	180	180
	TOTAL	154	714	2236	3903	5854	7004	8194	9214	10054	10934	11694	12424
Distance	(10% from Year 2)				390	585	700	819	921	1005	1093	1169	1242
				2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Graduate	PhD			10	5	6	7	8	10	12	14	17	17

	MPhil					5	6	7	9	10	12	15	18	21
	MSc By Research				15	18	22	26	31	37	45	54	64	77
	MSc/MA by Course Work					42	50	60	73	87	105	125	150	181
	MBA					20	24	29	35	41	50	60	72	86
	TOTALS (avg per prg)				**25**	**90**	**108**	**129**	**156**	**185**	**224**	**268**	**321**	**382**
						Approx. 20% increase every year								

6.2 Infrastructure and Its Costing

Increase in programme offerings and student numbers have direct implication on infrastructural cost and income for recurrent expenses.

Costing is split into three components to represent 3 phases of the plan. The first phase covers a period of 4 years 2016-2020, while the second (middle) and third phases cover infrastructural requirements for 2020-2023 and 2023-2026, respectively. Further, there is partitioning by the various campuses. This decomposition allows for the introduction of flexible and alternating strategies that may be conditioned by externalities.

Costing is adequately done by proposed campuses. The amount varies by the year and on the basis of programmes phasing and infrastructural requirements. The estimated cost of infrastructure for the entire University ranges from about 48 m in the first year to 97m in the fourth year of the short-term component of the plan. The total infrastructure cost is over One Billion Ghana Cedis (GHS 1,029,574,800).

6.3 Anticipated Revenue and Recurrent Expenditure

6.3.1 Operating Income

The amounts estimated for the total operating income were based on forecasted government subverted amounts, minimum annual intake of 50 students per programme throughout the planning period to 2026. These figures are based on the assumption that the University's physical infrastructures would be completed and multi-campus set-up in place and functional to be able to accommodate more programmes and students. Staff emoluments are assumed to be the normal responsibility of Government to a public funded institution, and the numbers of staff shall be a function of the number of programmes and spread across campuses.

6.3.2 Subventions from Government of Ghana

The years prior to the planned period, which includes the year of the establishment of the institution have not been particularly good with respect to government's release of subventions and infrastructure support from the GETFund. Under normal circumstances these releases would have provided adequate base for further projections. The projection from subvention is therefore based on Government's commitment to establish the University and with a multi-campus setting.

6.3.3 Students and Hostel fees

During the PLAN period Academic Facility User Fees are projected to increase on the average by 10% annually. Hostel fees are projected to reflect the market trend anticipated for the areas of operations of the University.

6.3.4 Income from Consultancy and Hospitality Services

The projections have assumed that the Consultancy and Hospitality units will start from the beginning of the planning period in 2016. It is further been assumed that the necessary logistics and aggressive marketing required to make these units successful will be provided and embarked upon in order to realize the amounts projected for these two streams of income in the plan.

SECTION 7: FUNDING INFRASTRUCTURAL GROWTH

By the transitional agreement, UENR inherited facilities from the KNUST which had earlier been used by the School of Forestry. These facilities are by no means adequate for a single programme, much more for the 57 programmes envisaged for the Plan period. In the preceding section, the total cost of infrastructural cost is over one billion Ghana Cedis. With current rate of depreciation, this amount is projected to be quite substantial and can be partially circumvented through an aggressive structured development with external partners and funds.

The Plan seeks to assess funds totalling 120 million for a 4-5year development plan from one of three sources or combination of these (which are detailed elsewhere). It is however expected that GETFund would provide at least 42% of expected funds under Private-Partnership approach for the entire plan period. Effective institutionalised lobbying activities would be pursued.

SECTION 8: MONITORING AND EVALUATION PLAN

All aspects of the Plan shall be monitored and reviewed as may be appropriately directed by Council. Monitoring and evaluation would be undertaken on a regular and systematic fashion to achieve the desired results. The Quality Assurance and Planning Unit (QAPU) is tasked with this responsibility and have the tools developed under this section in the main PLAN document as guide.

SECTION 9: PLAN IMPLEMENTATION AND THE COUNCIL

It is expected that the University Council shall constitute a plan implementation committee to ensure the effective implementation and monitoring of the Plan and recommend, as per changing circumstance, revision of the Plan as may deem necessary.

UNIVERSITY OF ENERGY AND NATURAL RESOURCES' STRATEGY MAP

Vision **Attain a world-class institution for generating, advancing and applying knowledge in energy and natural resource sciences.** **Mission** **Promote the development of human resources and skills required to solve critical energy and natural resources challenges of society and undertake interdisciplinary academic, research, and outreach programmes in engineering, science, economics and environmental policy.**	**Core Values**	**Strategic Thrusts**	**Strategic Activities**
	Promote innovation, creativity, freedom of thought and creative expression. Operate with integrity, commitment and transparency. Promote conservation of energy and the environment. Establish partnerships with stakeholders in skills, knowledge generation and application. Responsive to the needs of our students and partner communities. Promote and exemplify	**1. Critical Human Resources** Ensure the availability of critical human resources to achieve excellence in teaching, learning, research and outreach.	a) Build the capacity of faculty and staff. b) Enhance staff performance in Teaching, Research and Service Delivery.
		2. Culture Of Excellence Develop and promote a culture of excellence.	a) Promote excellence in teaching, learning and research. b) Promote excellence and internationalization of UENR. c) Enhance the quality, visibility and employability of UENR graduates. d) Develop and promote a structure and leadership style consistent with the Act establishing the University (Act 830) and in line with current best practices.
		3. Infrastructure And Operations Improve the infrastructure and operations to international standards.	a) Build and improve physical structures, logistical and support services. b) Ensure over-arching role of ICT in all operations of the University.
		4. Staff And Student Well-Being Promote and protect staff and student well-being.	a) Promote Healthy Work Environment. b) Ensure decent and well secured Environment.
		5. Financial Performance Ensure short and long term financial sustainability standing of the University.	a) Achieve greater financial self-reliance that can sustain its programmes and to ultimately shape its future.

	sustainability concepts across all University programmes and courses.