



Ghana Atomic  
Energy Commission

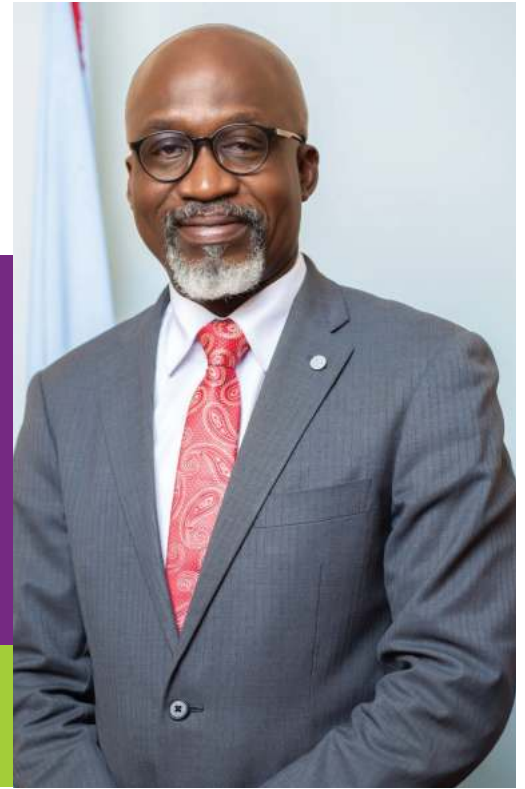


# CORPORATE STRATEGIC PLAN

**YEAR**  
2022-2026

ABRIDGED VERSION

Prof. Samuel B. Dampare  
**DIRECTOR-GENERAL**



## ► FOREWORD

The Ghana Atomic Energy Commission (GAEC) has been drafting and implementing corporate strategic plans to guide its operations, since 1999. The first of these plans were developed by a team of consultants led by the late Prof. S.K. Awuah of the Ghana Institute of Management and Public Administration (GIMPA).

Following this, GAEC has continually developed five-year strategic plans for 2005-2010, 2011-2016 and the current plan for 2017-2021 which will be replaced upon approval by the GAEC Corporate Strategic Plan for 2022 – 2026.

The approach to drafting the strategic plan has moved away from the use of consultants since the initial CSP. Constituted committees which are referred to as Strategic Action Plan Committees are now charged with the review of existing plans and draft for approval and implementation of the new strategic path of the Commission for the ensuing five years.

In view of this, Management constituted a Committee under the Chairmanship of Dr. Francis Gorman Ofori, Director of the National Nuclear Research Institute with detailed membership listed in the Appendices of this document to review the current GAEC CSP 2017-2021 and draft for approval and implementation, the new GAEC CSP 2022-2026.

The committee upon receiving five-year projections from all institutes and directorates proposed 7 strategic goals under 6 thematic areas.

The current Corporate Strategic Plan is for the period 2022-2026 and has been formulated to allow the Institutes and directorates of the Commission to develop work plans within its framework.

An implementation guide to assist institutes and directorates identify key areas of responsibility has been provided as part of this document. This guide also provides the framework within which milestones and achievements under this CSP will be assessed.

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## ► ABBREVIATIONS

AFRA	Africa Regional Co-operative Agreement for Research Development and Training related to nuclear science and technology (AFRA)
ANPh	Applied Nuclear Physics
ARBC	Applied Radiation Biology Centre
ARC	Accelerator Research Centre
BNARI	Biotechnology and Nuclear Agriculture Research Institute
CCRC	Cellular and Clinical Research Centre
CEPS	Customs, Excise and Preventive Service
CNSE	Computational Nuclear Sciences and Engineering
CONAS	Collage of Nuclear and Allied Sciences
CSIR	Council for Scientific and Industrial Research
CTBTO	Comprehensive Nuclear Test Ban Treaty Organization
CWPSF	Central Waste Processing and Storage Facility
DENIC	Digital Electronics and Nuclear Instrumentation Centre
ENVP	Nuclear and Environmental Protection
EPA	Environmental Protection Agency
ESC	Engineering Services Centre
FAO	Food and Agricultural Organisation
GAEC	Ghana Atomic Energy Commission
GHARR-1	Ghana Research Reactors 1
GIF	Gamma Irradiation Facility
GLP	Good Laboratory Practice
NRA	Nuclear Regulatory Authority
GMRP	Ghana Nuclear Reactor Project
GSA	Ghana Standards Authority
GSL	Gateway Service Limited
GCSP	GAEC's Corporate Strategic Plan
HPIC	Health Physics and Instrumentation Centre
IAEA	International Atomic Energy Agency
ICTC	Information and Communication Technology Centre
IDC	International Data Centre
IMS	International Monitoring System
KNNRI	Kwame Nkrumah Nuclear Research Institute
KNUST	Kwame Nkrumah University of Science and Technology
M&E	Monitoring and Evaluation
M&E/QC	Monitoring and Evaluation/ Quality Control
MESTI	Ministry of Environment, Science and Technology and Innovation
MOH	Ministry of Health
MPhy	Medical Physics
NAA	Neutron Activation Analysis
NAC	Nuclear Applications Centre
NAPM	Nuclear Technology Applications in Petroleum and Mining Industries



NARP	Nuclear Agriculture and Radiation Processing
NCA	National Communications Authority
NCERC	Nuclear Chemistry & Environmental Research Centre
NDC	National Data Centre
NDT	Non-Destructive Testing
NENG	Nuclear Engineering
NNRI	National Nuclear Research Institute
NPTC	Nuclear Power Training Centre
NRC	Nuclear Reactors Centre
NuRC	Nutrition Research Centre
RWMC	Radioactive Waste Management Centre
NSAP	Nuclear Sciences and Applications
NSAS	Nuclear Safety and Security
NSSC	Nuclear Security Support Centre
NSTP	Nuclear Science and Technology
NUAG	Nuclear Agriculture
NUES	Nuclear Earth Science
NURC	Nuclear and Radiochemistry
PATTEC	Pan African Tsetse and Trypanosomiasis Eradication Campaign
PCB	Polychlorinated Biphenyl
PLC	Programmable Logic Controller
PMF	Positive Matrix Factorisation
POP	Persistent Organic Pollutants
PPP	Public Private Partnership
QA/QC	Quality Assurance and Quality Control
QMS	Quality Management System
RADP	Radiation Protection
RAIS	Regulatory Authority Information System
RAMSRI	Radiological and Medical Sciences Research Institute
RAPR	Radiation Processing
RPI	Radiation Protection Institute
SGHV	Salivary Gland Hypertrophy Virus
SHS	Senior High School
SNAS	School of Nuclear and Allied Sciences
SSDL	Secondary Standards Dosimetry Laboratory
SSDL	Standards Dosimetry Laboratory
SSNTD	Solid State Nuclear Track Detection
TTIC	Technology Transfer and Innovation Centre
UCC	University of Cape Coast
UG	University of Ghana
UN	United Nations
UNIDO	United Nations Industrial Development Organisation
WHO	World Health Organisation
XRF	X-Ray Fluorescence

## ► EXECUTIVE SUMMARY

This Corporate Strategic Plan (CSP), which is crafted to cover the five-year period from 2022 to 2026 shows management's capacity to develop a medium-term strategic direction for the Commission.

The strategic goals of this CSP include the following;

- GOAL 1: To enhance Research, Development, and Innovation for national development
- GOAL 2: To develop and manage high-level human resource at all levels through the provision of quality education and training
- GOAL 3: To enhance income-generating activities to support GAEC's development objectives in accordance with its Financial Resource Mobilisation Strategy (FRMS)
- GOAL 4: To improve and modernise infrastructure to enhance research, development, and innovation for national development
- GOAL 5: To facilitate the establishment of strategic national facilities
- Goal 6.: To institutionalise corporate quality management system to enhance research and service delivery
- GOAL 7: To improve the corporate image of GAEC
- GOAL 8: To promote good corporate governance for good and ethical corporate performance

To enhance GAEC's relationship with key stakeholders needed to achieve the above strategic goals, management is committed to sound and transparent governance. This is aimed at ensuring fairness, trust, accountability, quality service, teamwork, and compliance with regulatory requirements.

Considering the factors affecting the business of the GAEC and also taking cognisance of its distinctive competencies and capabilities, the following thematic areas were identified towards the transformation required in achieving the long-term goals.

1. Research, Innovation and Development
2. Human Resource Development and Management
3. Financial Resource Mobilisation and Management
4. Physical Infrastructure Development
5. Establishment of strategic national facilities
6. Corporate quality assurance management
7. Corporate image enhancement
8. Good Corporate Governance

# ► PROFILE OF GHANA ATOMIC ENERGY COMMISSION

## BRIEF HISTORY

The beginning of what is now the Ghana Atomic Energy Commission (GAEC) could be traced as far back as 1952 when the use of radioisotopes began in Ghana. At that time, radio-strontium was used in experiments on monkeys.

In 1958, the Physics Department of the University College of the Gold Coast (now University of Ghana, Legon) on behalf of the Ministry of Defence started radioactive fallout monitoring service. By the end of 1959, work in radioisotope applications in Ghana had sufficiently gained ground in several institutions to justify the establishment of a Radioisotope Unit.

In September 1960, Ghana became a member state of the International Atomic Energy Agency (IAEA). The third sub-Saharan country to be admitted as a member of the IAEA. The GAEC has maintained its links with the IAEA and has also established links with other international bodies.

In 1961, the Government of Ghana decided to undertake the "Ghana Nuclear Reactor Project (GNRP)." The central facility of the project was to be a research reactor designed solely for research, training, and production of radioisotopes. The long-term strategic objective of this initiative was that the research reactor would facilitate the development of manpower and promote plans for the introduction of nuclear power for electricity generation in the Country. To help realize the objective of the Ghana Nuclear Reactor Project, the Ghana

Atomic Energy Commission was founded by an Act of Parliament Act 204, 1963.

The first President of the Republic of Ghana, Osagyefo Dr. Kwame Nkrumah in a statement marking the foundation stone laying for the GNRP on 25th November 1964 declared his vision for the project. He stated among other things that the nuclear power project would serve as a focal point for scientists and research workers from the various Institutes of the then Ghana Academy of Sciences, from the Universities and from Government laboratories all over the country. It was his hope that scientists would be provided with central facilities at the GAEC for investigation involving nuclear techniques in biology, agriculture, physics, and chemistry.

## ESTABLISHMENT ACT

The Ghana Atomic Energy Commission was established by an Act of Parliament, Act 204 of 1963, as the sole Agency in Ghana responsible for all matters relating to peaceful uses of atomic energy. The Act 204 was amended in 1993 by PNDC Law 308 mainly to enable it to create other institutes under the Commission. This amendment resulted in the creation of two other Institutes in addition to the National Nuclear Research Institute (NNRI) formerly Kwame Nkrumah Nuclear Research Institute (KNNRI). The two Institutes are the Radiation Protection Institute and the Biotechnology and Nuclear Agriculture Research Institute (BNARI).

The founding Act 204 of 1963 has been superseded by Act 588 of 2000 to make provision for GAEC to



undertake commercialisation of its research and development results.

## FUNCTIONS AND ACTIVITIES

The functions of the Commission as prescribed in Act 588 of 2000 are:

- i. To make proposals to the Government for Legislation in the field of nuclear radiation and radioactive waste management
- ii. To advise the Government on questions relating to nuclear energy, science, and technology
- iii. To establish, for the purpose of research and in furtherance of its functions, Institutes of the Commission and to exercise control over the boards of management of the Institute
- iv. To encourage and promote the commercialisation of research and development results through its Institutes
- v. To supervise the carrying out of all requirements designed to secure the safety and health of radiation workers and the environment
- vi. To engage in research and development activities, as well as

in the publication and dissemination of research findings and other useful technical information

- vii. To oversee and facilitate the development of human resources in the fields of nuclear science and technology, and to promote the training of scientific, technical, and non-scientific personnel of the Commission
- viii. To maintain relations with the International Atomic Energy Agency and other similar international and national organisations on matters of research and development of nuclear energy and nuclear technology
- ix. To collaborate with Universities and Research Institutes for the purpose of conducting research into matters connected with the peaceful uses of nuclear science and technology



## OUR VISION

To become the leading organisation contributing to sustainable national prosperity through the effective utilization of nuclear, biotechnology and other related technologies.

## OUR MISSION

- To develop and promote the utilization of nuclear, biotechnology, and other related technologies for socio-economic development through research, training, and commercialization.
- To advise government on policy related to peaceful applications of these technologies.

In pursuit of these, GAEC will build strategic alliances and partnerships with national, regional, and international bodies to assist Ghana fulfil her obligations on nuclear safety, security, safeguards, and environmental protection while building the necessary capacity for the introduction of nuclear power into Ghana's energy mix.

## CORPORATE VALUES

GAEC is committed to sound and transparent governance that will enhance the Commission's

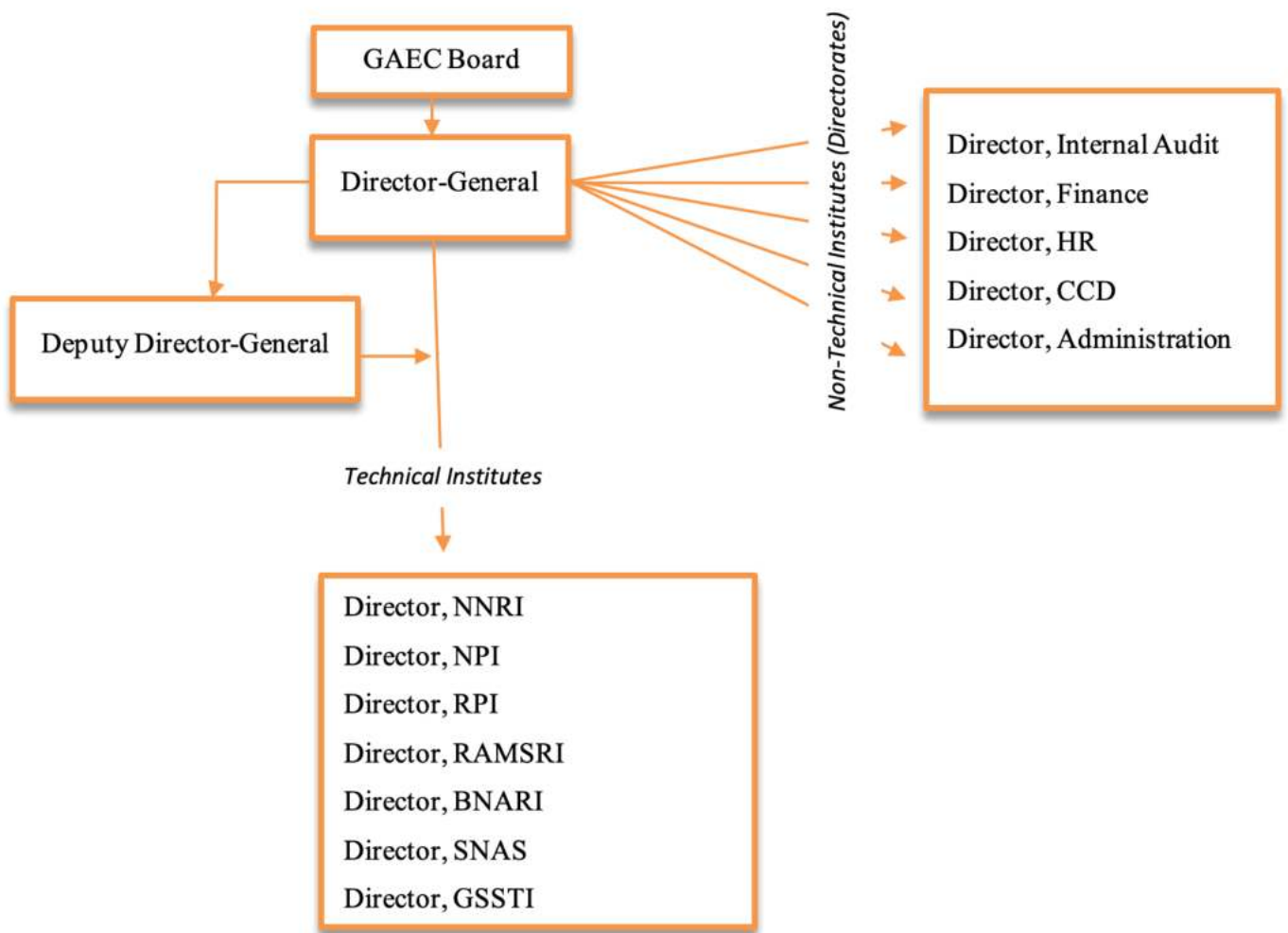
relationship with all stakeholders. This will be achieved through a leadership with the following core values; accountability; integrity; fairness; trust; customer satisfaction; quality services; teamwork and compliance with regulatory requirements.

## ORGANISATIONAL STRUCTURE AND MANAGEMENT

As determined by the Atomic Energy Commission Act, (Act 588 of 2000,) the Commission's Board is responsible for the governance of the Ghana Atomic Energy Commission (GAEC). It consists of a Chairman, the Director-General and five other members all appointed by His Excellency the President of the Republic of Ghana acting in consultation with the Council of State based on their suitability to serve in such positions. The Commission is answerable to the Ministry of Environment, Science, Technology, and Innovation (MESTI).

The Secretariat is responsible for the day-to-day administration of the Commission and is headed by the Director-General who is the Chief Executive Officer of the Commission. The Director-General is assisted by a Deputy Director-General who has been delegated an oversight responsibility of all Scientific and Technical matters of the Commission. Below is summarised organogram of the Commission:





**Figure 1: Summarised Organogram of the GAEC**

The scientific and technical functions of GAEC are performed by six (6) research institutes and the Graduate School of Nuclear and Allied Sciences (SNAS).

**These Institutes are:**

1. National Nuclear Research Institute (NNRI)
2. Radiation Protection Institute (RPI)
3. Biotechnology and Nuclear Agriculture Research Institute (BNARI)
4. Radiological and Medical Sciences Research Institute (RAMSRI)
5. Nuclear Power Institute (NPI)
6. Ghana Space Science and Technology Institute (GSSTI)

The Six (6) institutes have their respective secretariats each headed by a Director who performs the day-to-day administration and also coordinates the scientific activities of the institutes. Each institute is under a Management Board, which ensures that research and development programmes pursued are in line with the broad objectives of the Commission. The SNAS, a Graduate School, is headed by a Dean who has direct oversight of the activities at the school and liaises between the GAEC and the University of Ghana. The administrative functions of the GAEC are performed by five (5) Directorates.

**They are:**

1. Administrative Directorate
2. Finance Directorate
3. Internal Audit Directorate
4. Human Resource Directorate
5. Commercialisation and Communication Directorate

These Directorates perform oversight responsibilities and ensure that the Commission complies with laid down laws and statutes instituted by the Government and other relevant regulatory bodies.

There is an Executive Committee made up of

the Director-General, Deputy Director-General, Directors of the Technical and non-Technical Institutes. The Executive Committee serves as the main advisory organ for the Director-General to deliberate on matters such as –

- new initiatives
- formulation of new policies
- important institutional matters needing in-depth consideration
- implementation of decisions and policies made by the Commission





## ► SWOT ANALYSIS, COMPETENCIES AND CAPABILITIES

A careful and systematic assessment of the internal environment of the GAEC brings into light several strengths and weaknesses. The GAEC boasts of highly trained and experienced manpower recognised both locally and internationally which provides an edge over her competitors. International exposure to technical expertise from agencies like the International Atomic Energy Agency and other Donor Agencies provides an opportunity to enter strategic alliances in the fields of nuclear, biotechnology and other related technologies.

Also, the Commission houses key operational nuclear installations, laboratories, and other

facilities which create a competitive advantage in the pursuit of research and commercial activities. This coupled with current Government policy initiatives towards industrialisation (oil and gas, energy, agriculture, healthcare etc), present an opportunity for the GAEC. Specifically, initiatives such as Planting for Food and Jobs, Planting for Export and Rural Development, inclusion of nuclear power in Ghana's energy mix and government's support in the Ghana nuclear power programme, etc. are areas the GAEC can take advantage of. A summary of the strengths, weaknesses, opportunities and threats of the Commission is provided in the table below;

### STRENGTHS

1. Highly skilled and trained manpower
2. Congenial living/working environment
3. Nuclear and other infrastructure
4. Good inter-institutional relationships within GAEC
5. Good corporate governance

### OPPORTUNITIES

1. Availability of technical and capital support from IAEA and other Donor Agencies
2. Strong linkages with IAEA, other UN Agencies, and several countries in the fields of nuclear, biotechnology and other related technologies.
3. Government policy initiatives in Public- Private Partnerships towards industrialisation in oil, gas, energy, agriculture, healthcare etc
4. Availability of alternative sources of funding from agencies such as SDF, CTNET, EXIM Bank, GETFund, GIZ/KFW, Global Fund, SNV, SKA etc.
5. Off shoot or spin-off business from research outputs

## WEAKNESSES

1. Inadequate office space and equipment
2. Absence of some key policy documents
3. Inadequate internally generated funds to support the GAEC activities
4. Inadequate managerial experience
5. Lapses in recruitment procedures

## THREATS

1. Negative public perception due to inadequate advocacy to support the GAEC activities
2. Inadequate and untimely release of Government Funding
3. Emergence of competition in the GAEC's competencies in the fields of oil and gas, tissue culture, non-destructive evaluation, radiation protection and general laboratory services
4. The Reluctance on the part of private sector to invest in nuclear activities
5. Encroachment of the GAEC lands
6. Inadequate donor and private sector support

From the analysis of both the external and internal environment, it has become evident that the following areas are the competencies and capabilities of the GAEC:

- Radiation technology including NDT and radiation processing services in industry and commerce
- Radiation protection and safety assessment services
- Nuclear analytical services
- Tissue culture and plant mutation breeding techniques
- Machine design and fabrication including spare parts and fuel tanks for the oil industry
- Maintenance of medical, nuclear facilities/equipment and scientific instruments
- Nuclear imaging, radiotherapy and nuclear medicine Services
- Radiological and medical emergency services
- Highly trained and qualified personnel offering consultancy, training, and expert services in nuclear and related disciplines locally and internationally
- Accelerator research and analytical services
- Radio astronomy & instrumentation
- Data science, artificial intelligence & high-performance computing
- Climate science & remote sensing

- Financial planning and budgeting
- Education and training of nuclear professionals in areas such as health, agriculture, industry, and research.

Whilst some of these competencies and capabilities of the GAEC have become an integral part of the organisation, others need to be developed, strengthened through financial and human resource acquisition, training and retention so that the GAEC continues to support national development.



## ► STRATEGIC THRUST

1. Research, innovation and development
2. Human resource development and management
3. Financial resource mobilisation and management
4. Physical infrastructure development
5. Establishment of strategic national facilities
6. Corporate quality assurance management
7. Corporate image enhancement
8. Good corporate governance

## ► STRATEGIC GOALS

Goal 1: To enhance research, development, and innovation for national development

Goal 2: To develop and manage high level human resource at all levels through the provision of quality education and training

Goal 3: To enhance income generating activities to support the GAEC's development objectives in accordance with its Financial Resource Mobilisation Strategy (FRMS)

Goal 4: To improve and modernize infrastructure to enhance research, development, and innovation for national development

Goal 5: To facilitate the establishment of strategic national facilities

Goal 6: To institutionalize corporate quality management system and promote safety culture to enhance research and service delivery

Goal 7: To improve the corporate image of the GAEC

Goal 8: To promote good corporate governance for good and ethical corporate performance

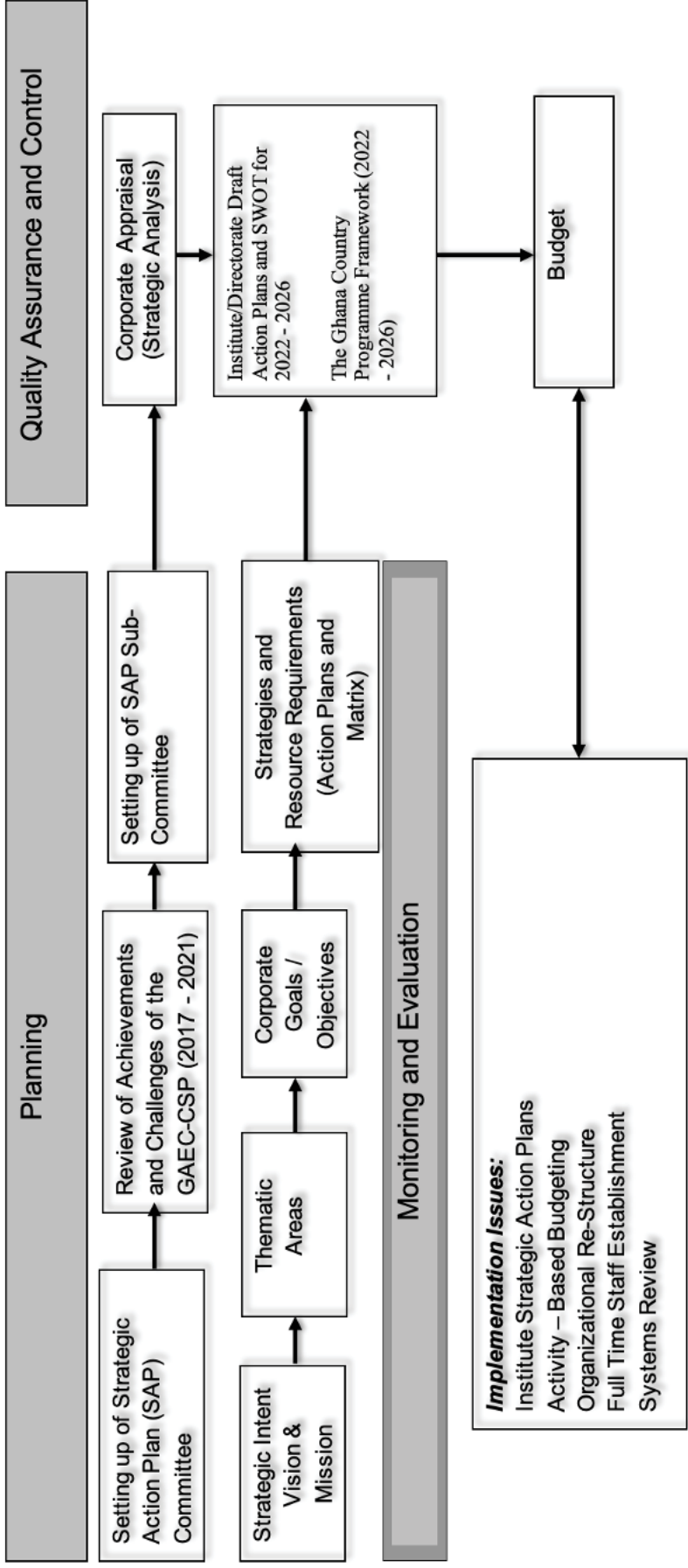
## ACHIEVEMENTS UNDER THE GAEC CSP 2017 - 2021

The Commission has chalked significant successes since the implementation of the 2017 – 2021 CSP. The following is an account of key achievements over the past five (5) year period.

<p><b>32/10</b></p> <ul style="list-style-type: none"> <li>Technologies/Knowledge transfer</li> </ul>	<p><b>232/220</b></p> <ul style="list-style-type: none"> <li>Technical Reports</li> </ul>	<p><b>494/850</b></p> <ul style="list-style-type: none"> <li>Publications</li> </ul>	<p><b>29/25</b></p> <ul style="list-style-type: none"> <li>Award winning proposals</li> </ul>	<p><b>12/25</b></p> <ul style="list-style-type: none"> <li>Academic Programmes</li> </ul>
<p><b>Commercialization and Communications Directorate</b></p> <ul style="list-style-type: none"> <li>Established</li> </ul>	<p><b>Human Resource Unit</b></p> <ul style="list-style-type: none"> <li>Upgraded to Directorate</li> </ul>	<p><b>80%</b></p> <ul style="list-style-type: none"> <li>Fibre optics network connectivity installed</li> </ul>	<p><b>GAEC HRMIS</b></p> <ul style="list-style-type: none"> <li>Initiated</li> </ul>	<p><b>9/16</b></p> <ul style="list-style-type: none"> <li>HR Policy documents developed</li> </ul>
<p><b>277/250</b></p> <ul style="list-style-type: none"> <li>Seminar &amp; Conference participations</li> </ul>	<p><b>33/25</b></p> <ul style="list-style-type: none"> <li>GAEC Lecture Series held</li> </ul>	<p><b>6/20</b></p> <ul style="list-style-type: none"> <li>Staff Durbars</li> </ul>	<p><b>IAEA Milestone Approach</b></p> <ul style="list-style-type: none"> <li>Phase 1 completed</li> </ul>	<p><b>VLBI radio telescope</b></p> <ul style="list-style-type: none"> <li>Operational</li> </ul>
<p><b>13 Policy Documents</b></p> <ul style="list-style-type: none"> <li>Developed &amp; Implemented</li> </ul>		<p><b>15 Collaborations with industry and institutes of higher learning</b></p> <ul style="list-style-type: none"> <li>Established</li> </ul>		



# SCHEMATIC REPRESENTATION OF THE PLANNING PROCESS



*Figure 2. 2 Phases of the Corporate Planning Process*



## ➤ CRITICAL ISSUES

An organisation's business environment establishes the context within which the organisation functions. The GAEC's business environment consists of several factors that affect the business and impact on its performance. The following issues were identified as critical and need to be addressed:

### Government policies and priorities

- i. Decline in funding from government for research and development activities
- ii. Change in government policy on payment of utilities such as electricity and water for public institutions
- iii. Change in Internally Generated Funds (IGFs) retention policy of Government.

### Synergy between the GAEC's strategic goals and national agenda

- i. Some research outputs have little bearing on national development plans and the needs of industry
- ii. Inadequate bankable proposals from the GAEC to address national needs
- iii. Inadequate collaboration between the GAEC and industry

### Quality Management Systems (QMSs) for research and service delivery

- i. Lack of accreditation of services hinders the GAEC's competitiveness and commercialisation drive
- ii. Inadequate effective reporting systems to assure both internal and external stakeholders of high-quality service delivery

### Enhanced Information Communication and Technology

- i. Completion of the network infrastructure at the Commission to pave way for user training and accessibility
- ii. Working towards paperless administration with the introduction of intranet solutions
- iii. Provision of a central backup facility
- iv. Establish a data centre
- v. Establish electronic library at the main GAEC library
- vi. Implementation of an efficient and effective Human Resource Management Information System (HRMIS)



## ► STRATEGIC INTENT

### Enhanced Information Communication and Technology

- i. Completion of the network infrastructure at the Commission to pave way for user training and accessibility
- ii. Working towards paperless administration with the introduction of intranet solutions
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- v. Establish electronic library at the main GAEC library
- vi. Implementation of an efficient and effective Human Resource Management Information System (HRMIS)

### Establishment of strategic national facilities and institutions through Public-Private Partnerships (PPPs)

- i. Establish the national Technical Support Organisation for the nuclear industry
- ii. Develop the National Space Policy to harness space science and technology for the socio-economic development
- iii. Establish the radiological emergency facility to address future radiological issues
- iv. Establish nuclear imaging, diagnostic and radiotherapy facility

- v. Establish Plant Disease Surveillance and Diagnostic Centre
- vi. Construction of protein bait plant
- vii. Establish food processing incubation hub
- viii. Establish National Non-Destructive Evaluation (NDE) & Welding Training facility
- ix. Establish Gamma Irradiation Facilities for food preservation, post-harvest management and medical sterilization at key locations in Ghana

### Upgrading the Graduate School of Nuclear and Allied Sciences to a fully-fledged University

- i. Amend the GAEC's establishment Act and mandate to include Education
- ii. Revise existing programmes, develop new ones (including undergraduate programmes), and improve on facilities and equipment
- iii. Establish schools to handle different courses
- iv. Improve on student enrolment

### Improvement in financial resource mobilisation

- i. Establishing enterprises from technologies developed
- ii. Entering into bilateral agreements to attract funds for specific projects
- iii. Writing proposals for research, development, and innovation
- iv. Funding from industry to address specific industrial needs



## Introduction of Nuclear Power into Ghana's energy mix

The improvement in Ghana's economy and its effect on the living standards of the people, have brought to the fore increased demand for electricity for domestic, industrial, and commercial uses. This has resulted in our support for the development and introduction of nuclear power in Ghana.

GAEC has achieved the successful implementation of IAEA Milestone Phase two of the Nuclear Power Programme.

## Signing and implementation of Ghana's Country Programme Framework

The Republic of Ghana through the GAEC has developed a Country Programme Framework (CPF) for the period 2022 to 2027. The CPF provides the reference framework for collaboration through technical cooperation (TC) between the Government of Ghana and the International Atomic Energy Agency (IAEA). The CPF outlines a framework for focused IAEA Technical Cooperation in supporting the current socio-economic development goals of Ghana, where nuclear science and technology presents a competitive advantage over other technologies.

Seven (7) priority areas namely, nuclear and radiation safety and security, food and agriculture, human health and nutrition, water resources and environment,

energy and nuclear power development, Nuclear Knowledge Management (NKM), human resource development and industrial applications. These priority areas were identified where the transfer of nuclear technology and technical cooperation resources will be directed to support sustainable social and economic development. The planned outcomes will contribute to the attainment of 12 of the SDGs ( 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13 and 17), and are expected to lead to enhanced capacity for nuclear applications.

In line with its mandate, the GAEC is expected to play a key role in the implementation of the CPF, with the National Liaison Officer (DG of GAEC) playing a major role in facilitating the technical cooperation between Ghana and the IAEA

## Improvement in ICT infrastructure and usage

- i. Increased usage of Online meetings, Enterprise Resource Planning Systems(ERP) such as online administration and services, GIFMIS, Public Procurement Procedures, Right to information Portal (RTI),etc
- ii. The GAEC to improve its ICT for more efficient ways of doing business and research by exploiting the use of intra and internet

## Increased usage of nuclear, biotechnology and other related technologies in industry

- i. Improvements in local infrastructure and technology transfer has increased the use of nuclear technologies in

- developing countries particularly in Africa
- ii. There is significant increase in the support from the donor community towards industry-based project which uses nuclear, biotechnologies and related technologies
  - iii. Global concerns and efforts at reducing potential for malicious acts involving nuclear facilities or unsecured nuclear and other radioactive materials has improve the global confidence in the use of nuclear and related technologies.



## ► KEY PLANNING ASSUMPTIONS

The main assumptions underlying the performance targets and operating plans are detailed below:

### Government Policy Direction

Changes in governments' policies could affect the progressive utilization of nuclear technology. Despite this, government policy on adoption of nuclear power into Ghana's energy mix is expected to continually receive the necessary attention. It is envisaged that the Commission will continue to perform industry-relevant research and tailor its activities to government policies. The GAEC will also continue to take advantage of government policy on public-private partnership initiatives.

### Adequate Funding by Government

Reduction in government funding is impacting negatively on the Commission's activities. This CSP aims at identifying several internal and external sources of funding to promote the Commission's activities

### Continuous collaboration with IAEA and other donor agencies

Despite the commitment of management to

identify and collaborate with relevant stakeholders to support development, their willingness to partake remains a risk that must be addressed. This is the same also for other stakeholders in research and technical cooperation such as the IAEA, ICTP, AFRA etc. It is therefore imperative for management to honour all financial obligations in terms of subscriptions as well as terms and conditions in MOUs/MOAs to remain relevant to these stakeholders

### Continued Existence

Government will ensure that the GAEC as a strategic national institution will continue to exist as an organisation to manage the State's Nuclear Institutional facilities and meet its obligations.


### Political

That government will aggressively pursue economic and social development policies amidst constitutional rule and political stability.

### Human Resource Management (HRM)

That HRM functions will be pursued leading to the resolution of key human resource issues. These include strategic recruitment (i.e., appropriate selection procedure, induction/orientation, placement, training, and development as well as succession planning). It is expected that structures will be put in place to address issues such as linking incentive packages to performance and having effective and efficient appraisal systems.



An aerial photograph of a campus. A paved road with white lane markings runs diagonally from the top left to the bottom right, intersecting with another road. To the left of the main road is a large building with a green corrugated metal roof. To the right is a building with a red roof. In the center, there is a large green lawn with a star-shaped garden bed. A parking lot with several cars is visible in the bottom left corner. The overall scene is a well-maintained institutional or educational campus.

## Effective Quality Management

Management recognizes the need for critical changes in organisational policies and processes to ensure strict adherence to internationally accepted standards and procedures. This drive could have a negative impact on staff morale and motivation, to mitigate this, management will streamline and standardize key business processes that support organisational needs.





# ▶ STRATEGIC GOALS AND OBJECTIVES

The following is a summary of strategic goals and objectives of the CSP. This is followed by a matrix of goals, objectives, action plans, key performance indicators, responsibilities and means of verification.

## **GOAL 1: To Enhance Research, Development, And Innovation For National Development**

- Objective 1.1: To explore and utilise the peaceful application of nuclear science and technology, biotechnology, and allied sciences for the benefit of society
- Objective 1.2: To promote, develop and implement world class research and innovative programmes in nuclear, biotechnology, allied sciences, and other related disciplines
- Objective 1.3: To initiate new academic programmes and collaborative research with industry, institutions of higher learning and other agencies to address national needs

## **GOAL 2: To Develop And Manage High Level Human Resource At All Levels Through The Provision Of Quality Education And Training**

- Objective 2.1: To introduce undergraduate education / training and expand postgraduate training in nuclear, biotechnology, space and allied sciences
- Objective 2.2: To tailor students' research to support industry
- Objective 2.3: To establish a senior high school
- Objective 2.4: To produce high calibre nuclear scientists and engineers to support industry for the socio-economic development of Ghana and Africa
- Objective 2.5: To develop, motivate and retain high calibre staff
- Objective 2.6: To digitalise key administrative and human resource procedures
- Objective 2.7: To develop and implement a National Space Policy to harness space science and technology for the socio-economic development
- Objective 2.8: To improve the capacity of the Planning, Monitoring and Evaluation Department (P, M&E) for effective monitoring



### **GOAL 3: To Enhance Income Generating Activities To Support Gaec's Development Objectives In Accordance With Its Financial Resource Mobilisation Strategy (FRMS)**

- Objective 3.1: To review the implementation of the Financial Resource Mobilization Strategy (FRMS) within the first year
- Objective 3.2: To setup enterprises and new services/facilities (PPP or GAEC owned) using technologies, re-engineering existing technologies/services and innovations developed by GAEC
- Objective 3.3: To establish a GAEC Research Fund
- Objective 3.4: To reduce GAEC's expenditure

### **GOAL 4: To Improve And Modernize Infrastructure To Enhance Research, Development And Innovation For National Development**

- Objective 4.1: To construct well-equipped laboratories, additional office spaces and upgrade existing facilities
- Objective 4.2: To engage private/public participation in infrastructure development especially for the service sector of the GAEC
- Objective 4.3: To expand and modernize ICT facilities for the enhancement of research and development (R&D) and commercialization
- Objective 4.4: To improve the network infrastructure & security
- Objective 4.5: To develop and implement a comprehensive policy for continuous maintenance, replacement, and modernization of GAEC assets and facilities

## **GOAL 5: To Facilitate The Establishment Of Strategic National Facilities**

- Objective 5.1: Continue to facilitate the introduction of nuclear power into Ghana's energy mix
- Objective 5.2: Establish National Technical Support Organization for Industry
- Objective 5.3: Establish a satellite ground receiving station (GRS)
- Objective 5.4: Establish a Radiological Emergency facility to address future radiological issues
- Objective 5.5: Establish a nuclear imaging, diagnostic and radiotherapy facility
- Objective 5.6: Establish a Plant Disease Surveillance and Diagnostic Centre (PDSDC)
- Objective 5.7: Construct a Protein Bait Production Plant (PBPP)
- Objective 5.8: Establish a National Non-destructive Evaluation & Welding Technology Training Facility (NDT-WTTF)

## **GOAL 6: To Institutionalize Corporate Quality Management System And Promote Safety Culture To Enhance Research And Service Delivery**

- Objective 6.1: To develop a comprehensive Quality Assurance policy for GAEC

## **GOAL 7: TO IMPROVE THE CORPORATE IMAGE OF GAEC**

- Objective 7.1: To continue to improve and maintain an attractive website and social media accounts
- Objective 7.2: Develop and implement a GAEC Stakeholder Engagement policy
- Objective 7.3: Enhance the corporate image of the commission through Stakeholder relationships
- Objective 7.4: Improve corporate governance and image for positive organizational performance

## **GOAL 8: To Promote Good Corporate Governance For Good And Ethical Corporate Performance**

- Objective 8.1: To promote trusteeship and accountability in leadership of the Commission
- Objective 8.2: To ensure a transparent and open corporate governance

# ► IMPLEMENTATION FRAMEWORK

The five-year Corporate Strategic Plan (CSP) will guide the Commission in the performance of its duties. The CSP contains strategic goals and objectives for the various Institutes and Directorates as an overarching guide for the development of work plans. Implementation of the CSP requires a framework that outlines the steps to be taken when executing the strategic goals and objectives. It is the link between plan formulation and output. Key among the implementation framework is a comprehensive communication strategy. The communication strategy will make the content of the GAEC Corporate Strategic Plan accessible and easily understood by the Staff and other relevant stakeholders of GAEC. The Communication Strategy will use various communication tools to highlight key aspects of the CSP for the benefit of staff and other stakeholders. It will outline the communication goals and objectives as well as identify stakeholders and key messages while specifying mechanisms for feedback. The communication strategy for the CSP seeks to achieve the following objectives.

- Empower GAEC staff to take ownership and accept direction of the CSP
- Creating Awareness and Visibility of the Key Priority Targets and contents of the CSP
- Educate and inform stakeholders on key aspects of the CSP

Techniques to be used for achieving the set objectives of this strategy are;

- Developing and producing communication materials/assets
- Creating visibility of main targets or priority areas of the CSP across the Commission at vantage points
- Organizing sensitization and advocacy programs for GAEC staff on the content of the CSP.

For the purposes of the current CSP, the target audience for the communication strategy shall be all GAEC staff and the GAEC Board Members.

## Key implementation Activities

### a. Stakeholders' Forum

Before the CSP is finalized, all the stakeholders should be given the opportunity to know the content of the plan and to make their final inputs into it. This is to ensure high level sense of ownership of the plan and as a result increase the degree of success of its implementation. A Stakeholder forum will be organized for identifiable groups in GAEC community for this purpose.

The draft document will then be considered by the Executive Committee and finally by the Commission (Board).



## **b. Orientation Workshop for Principal Actors**

Before the CSP is finalized, all the stakeholders should be given the opportunity to know the content of the plan and to make their final inputs into it. This is to ensure high level sense of ownership of the plan and as a result increase the degree of success of its implementation.

A Stakeholder forum will be organized for identifiable groups in GAEC community for this purpose.

The draft document will then be considered by the Executive Committee and finally by the Commission (Board).

## **c. Launching**

The CSP document will be launched after final approval by the Commission (Board).

## **d. Development of the Implementation Guide/Plan**

The implementation framework comprises an implementation plan as well as monitoring and evaluation strategies. The M&E Department shall be required to complete the Implementation Plan two (2) weeks after the launch of the CSP to periodically assess activities undertaken, key milestones and deliverables achieved and corresponding periods of execution.

The M&E process should also include monitoring of resource flow and its application. The major results expected during the M&E process should take into account the responsibilities, key performance indicators, time frame and action plans. Reporting on milestones shall be done using tables, charts and diagrams, multimedia etc. However, frequency of reports shall be determined by the Deputy Director-General.

Further, the M&E process should assess the level of transparency in implementation, accountability, degree of participation, outputs and impacts of the projects. As much as possible, the monitoring and evaluation process should be undertaken through a participatory process involving all relevant stakeholders including all staff.

The report of the M&E will be laid before the Executive Committee periodically for the necessary actions. The feedback from this exercise will be used to fine-tune the implementation process.

## ► CONCLUSION

It was realised that for the Commission to make the required impact nationally and internationally, especially within the framework of IAEA, there is the need to adhere to a stringent road map for the next five (5) years.

The focus of this plan is to give direction from 2022 to 2026 in eight thematic areas identified as key priorities in the Commissions' quest to address national challenges and goals.

To this end, the plan seeks to explore and employ stringent monitoring and evaluation mechanisms and processes that will appraise the key actions being executed. This is to give feedback to Management to take corrective measures.

# ► LIST OF CORPORATE PLAN COMMITTEE MEMBERS

## COMMITTEE MEMBERS

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14. Mr. Richard Asare - Member/Secretary

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## ► REFERENCES

### Projection from:

- Ghana Space Science and Technology Institute
- Radiological and Medical Research Institute
- National Nuclear Research Institute
- Nuclear Power Institute
- Graduate School of Nuclear and Allied Sciences
- Radiation Protection Institute
- Biotechnology and Nuclear Agriculture Research Institute

GAEC Corporate Strategic Plan 2017 – 2021

GAEC Corporate Strategic Plan 2011 - 2016



