



Nigerian Institution of Agricultural Engineers

Strategic Plan report

September 2023

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1. Term of Reference of the NIAE Roadmap and Strategic Plans Committee

The committee shall:

1. Help in fine-tuning the plans so that all members can be carried along in achieving the immediate plans.
2. Work to lay a good foundation for a 30-year strategic plan.
3. Help in prioritizing the implementable part of the road map.
4. Identify areas in the map that can help in creating opportunities for our members to practice the profession profitably.
5. See ensure that such areas identified make great impact in national development and food security.
6. Perform other functions as may be delegated by the National Chairman and NEC.

Relevant Term of Reference for the Strategic Plan

- Work to lay a good foundation for a 30-year strategic plan.

2. Membership of the NIAE Roadmap and Strategic Plans Committee

- | | |
|-------------------------|------------|
| 1. Prof Femi Ajibola | Chair |
| 2. Engr Elesu Bitrus | Vice Chair |
| 3. Prof Ozoemena Ani | Secretary |
| 4. Engr Risikat Samaila | NEC Member |
| 5. Dr Jones Akinbolade | Member |
| 6. Engr Victor Olomo | Member |
| 7. Prof S. M Musa | Member |
| 8. Dr Isaac Tanam | Member |
| 9. Dr Umar Bindir | Member |
| 10. Engr Tayo Badmus | Member |
| 11. Engr Femi Dosumu | Member |
| 12. Prof Mike Faborode | Member |
| 13. Engr Nabeel Adeyemi | Member |
| 14. Prof Henry Igbadun | Member |
| 15. Engr Yemisi Shyllon | Member |
| 16. Engr Ola Akeju | Member |

3. Methodology used in achieving the Term of Reference

1. Review NIAE's Vision and Mission Statement.
2. Establish core values for the NIAE.
3. Carry out a Strength Weakness Opportunity Threat (SWOT) analysis to determine competitive advantage and strategic objectives.
4. Establish priorities, goals and activities in alignment with roadmap.
5. Develop an implementation strategy/ strategic initiative in line with the roadmap.

4. Vision, Mission, Core Values, Strategic Objectives

	Current	Proposal
Vision Statement	To be one of the best professional bodies in Nigeria and Africa and to make agricultural and bio-resources engineering a foremost contributor to the economic transformation of Nigeria.	To make agricultural and bioresources engineering profession nationally, regionally and globally prominent as well as recognized as the leading engineering for agriculture, food and biological resources
Mission Statement	To have a well-organized institution whose structure and programmes cuts across all levels of membership such that the vision of being the best can be actualized. To upgrade the status, quality and practice of agricultural and bio-resources for an inclusive national development	To position NIAE as the leading and preferred engineering professional body that provides the best and most appropriate engineering, technology and consultancy services for agricultural, food and biological resources production, processing and utilization.
Core Values		<ul style="list-style-type: none"> ● Creativity and Innovation ● Professionalism and Integrity ● Continuous learning & improvement ● Teamwork ● Transparency and accountability ● Diversity and Social Responsibility
Strategic Objectives		<ol style="list-style-type: none"> 1. Influence Policy on Application of Engineering to Agriculture and Bioresources: by articulating policies on the application of engineering and technology to agriculture and bio-resources 2. Support for Individual Engineers: through mentorship, empowerment, promotion of innovation, research and development of the individual agricultural engineer

	Current	Proposal
		<p>3. Promote Engineering Businesses: by developing strategies for the development of micro, small, medium and large scales agricultural engineering enterprises</p> <p>4. Promote Quality of Engineering Outputs: by advocating standards of agricultural engineering processes and products.</p> <p>5. Collaborate with Other Institutions: to learn and share best practices in the development of agriculture through science, engineering and technology</p> <p>6. Effective Leadership: to develop and implement a governance, communication and organisational structure to be able to deliver value to its stakeholders</p> <p>7. Membership Commitment: To develop and implement policies and processes to promote active participation and commitment of members and fellows</p> <p>8. Sustainable Finance: To develop and maintain sustainable funding strategies</p>
Strategic Areas of Focus	<ul style="list-style-type: none"> <input type="checkbox"/> Welfare <input type="checkbox"/> Conferences <input type="checkbox"/> Career Counseling <input type="checkbox"/> Technical tour <input type="checkbox"/> Fundraiser <input type="checkbox"/> Advocacy <input type="checkbox"/> Consultancy <input type="checkbox"/> Workshops <input type="checkbox"/> Capacity Building 	<ul style="list-style-type: none"> <input type="checkbox"/> Promotion of professional development for members <ul style="list-style-type: none"> - Conferences, Technical Tours, Field Days, Case Studies, - Consultancies and Business Development - Capacity Building/professional training for members - Publications (Scopus indexed and others) - Collaboration with relevant institutions nationally and internationally <input type="checkbox"/> Establishment of an efficient and sustainable NIAE <ul style="list-style-type: none"> - Physical infrastructures (building, land property, etc.) - Strengthen Finance and Administration of NIAE (internal structures, secretariat, branches, websites, communication, structure, etc.) - Fund raising

	Current	Proposal
		<ul style="list-style-type: none"> <input type="checkbox"/> Growing the profession <ul style="list-style-type: none"> - Undertake membership drive - Career Counseling for students <input type="checkbox"/> Creating impact <ul style="list-style-type: none"> - Advocacy to government - Collaborating with relevant government agencies - Preparation of policy documents and showcasing possibilities/solutions - Implementation of the roadmap

5. Stakeholder Analysis

NIAE STAKEHOLDER ANALYSIS (Interest-Influence Assignment Template)

STAKEHOLDERS	Interest		Influence		Engagement Strategy
	Low	High	Low	High	
EXTERNAL STAKEHOLDERS					
A. Organized Private Sector (OPS) Organizations					
1. NASSI- Nigerian Association of Small-Scale Industrialists		X	X		Keep Informed
2. NASME- Nigerian Association of Small and Medium Enterprises		X	X		Keep Informed
3. NACCIMA- Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture		X		X	Engage Closely
4. MAN- Manufacturers Association of Nigeria		X		X	Engage Closely
5. Agricultural Production Groups/ Organizations (Biomaterials, Cassava, Yam, Rubber, Cocoa, Rice, Tree Crops) See Annex 1A for List		X	X		Keep Informed
6. Agricultural Processed Products Groups/Organizations (See Annex 1B for List)		X	X		Keep Informed
7. Organizations responsible for animal husbandry and livestock, etc. (See included in Annexure 2A)	X			X	Keep Satisfied
B. Public Sector Organizations					
1. National Centre for Agricultural Mechanization (NCAM)		X		X	Engage Closely
2. Agricultural Research Institutes		x		X	Engage Closely
3. NEPC- Nigerian Export Promotion Council	x		X		Monitor
4. SMEDAN- Small and Medium Enterprise Development Agency		X		X	Engage Closely
5. NASENI- National Agency for Science and Engineering Infrastructure		X		X	Engage Closely
6. RMRDC- Raw Materials Research Development Council		X		X	Engage Closely
7. NIPC- Nigerian Investment Promotion Commission	X			X	Keep Satisfied
8. Federal Ministries of Agriculture and Rural Development		X		X	Engage Closely

STAKEHOLDERS	Interest		Influence		Engagement Strategy
	Low	High	Low	High	
9. Federal Ministry of Water Resources		X		X	Engage Closely
10. Federal Ministry of Science and Technology		X		X	Engage Closely
11. Federal Ministry of Environment		X		X	Engage Closely
12. Federal Ministry of Industry, Trade and Investment		X		X	Engage Closely
13. Agricultural Development Programmes (ADPs)		X	X		Keep Informed
C. Engineering and Agriculture-related Professional Organizations					
1. NSE- Nigerian Society of Engineers		X		X	Engage Closely
2. Nigerian Academy of Engineering (NAE)		X		X	Engage Closely
3. COREN- Council for the Regulation of Engineering in Nigeria		X		X	Engage Closely
4. NESG- Nigerian Economic Summit Group	X			X	Keep Satisfied
5. Nigerian Economic Society	X		X		Monitor
6. Nigeria Agriculture Business Group	X			X	Keep Satisfied
D. Political Organizations					
1. ALGON- Association of Local Governments of Nigeria Secretariat (National Chairman)	X			X	Keep Satisfied
2. NGF- Nigerian Governors' Forum Secretariat (National Chairman)	X			X	Keep Satisfied
E. Regional/International Organizations or Bodies					
1. AfDB- African Development Bank		X		X	Engage Closely
2. AU- African Union	X			X	Keep Satisfied
3. ECOWAS- Economic Community of West African States	X			X	Keep Satisfied
4. United States Department of Agriculture (USDA)		X		X	Engage Closely
5. Food and Agricultural Organization of the United Nations (FAO)		X		X	Engage Closely
7. AfroExim Bank		X		X	Engage Closely
8. Nexim		X		X	Engage Closely

6. SWOT Analysis

Internal	<p style="text-align: center;"><u>Strengths</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Experienced membership <input type="checkbox"/> Strong network of members and fellows <input type="checkbox"/> Presence of many competent and highly placed members and fellows <input type="checkbox"/> Presence of members and fellows all over the country <input type="checkbox"/> Highly motivated membership 	<p style="text-align: center;"><u>Weaknesses</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Weak financial position of NIAE <input type="checkbox"/> Weak administrative structure <input type="checkbox"/> Lack of strategic plan <input type="checkbox"/> Failure to effectively leverage on strengths <input type="checkbox"/> Poor advocacy capacity <input type="checkbox"/> Members do not see much value coming from the institution. <input type="checkbox"/> Lack of access to engineering infrastructure and production resources <input type="checkbox"/> Poor linkage with important political structures <input type="checkbox"/> Weak impact on agricultural sectoral development
	External	<p style="text-align: center;"><u>Opportunities</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Renewed interest in promotion of agriculture <input type="checkbox"/> New attempt to raise the profile of the Nigerian Engineer <input type="checkbox"/> Existence of national and international projects promoting agriculture and requiring engineering inputs <input type="checkbox"/> Improved potential for mobilising human, material and financial resources for areas of interest <input type="checkbox"/> Desire for diversification of the Nigerian economy <input type="checkbox"/> Advent of digital technology

7. Strategic Objectives, Strategic Initiatives & Phasing

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
1. Influence Policy: by articulating policies on the application of engineering and technology to agriculture and bio-resources	<input type="checkbox"/> Regularly develop policy papers and case studies in areas of agricultural and bio-resource engineering and ensure they are presented and advocated on to relevant agencies.	NEC Branches	X	x	x	X
	<input type="checkbox"/> Develop relationships with the relevant executive and legislative arms of government to influence the appointment of the leadership of relevant engineering institutions.	NEC Branches	X	x	x	X
	<input type="checkbox"/> Develop relationships with the leadership of agricultural engineering Ministries, Departments and Agencies of Government, Universities and Research Institutes to develop and promote best practices.	NEC Branches	X	x	x	X
	<input type="checkbox"/> Undertake continuous advocacy to government at all levels on relevant issues relating to budgets, projects, etc.	NEC Branches	X	x	x	X
2. Support Individual Engineers: by empowering and promoting innovation, research and development	<input type="checkbox"/> Regularly publish the journal (JAET) and organise conferences/ workshops/ forums to disseminate opinions and findings on key agricultural and bio-resource engineering issues.	NEC Branches Working groups	X	x	x	X

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
of the individual agricultural engineer	<input type="checkbox"/> Engage with Industry and the Academia to design and implement post qualification development and mentoring programmes for young engineers.	NEC to involve COREN, NYSC & NUC	X	X		
	<input type="checkbox"/> Institute and facilitate scholarships, prizes, awards and research activities in tertiary and research institutions.	NEC to engage Industries, individuals and other institutions	X	x	x	X
	<input type="checkbox"/> Implementation of Research and Human development component of roadmap	NEC to involve COREN & NUC	X	x	x	X
	<input type="checkbox"/> Establish and regularly update a comprehensive database of agricultural engineers including their areas of expertise	NEC	X	x	x	X
3. Promote Engineering Businesses: by developing strategies for the development of micro, small, medium and large scales agricultural engineering enterprises	<input type="checkbox"/> Develop a programme for identifying and supporting commercializable research outputs and innovations and facilitate their commercialization through collaboration with relevant agencies.	NEC to create a unit/committee to facilitate the achievement this. Interact with TETFUND, NOTAP, NACETEM etc.	X	x	x	X

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
	<input type="checkbox"/> Promote local content of engineering services and products.	NEC to liaise with National Local Content Commission	X	x	x	X
	<input type="checkbox"/> Encourage and facilitate industry-Academia collaboration for solving local engineering problems, possibly through demo centres, etc.	NEC to promote collaboration with TETFUND, NCAM, NASENI, Universities, Research Institutes, etc.	X	x	x	X
	Roadmap Initiatives <input type="checkbox"/> Mechanization and Land Development <input type="checkbox"/> Agro-Industrial Development <input type="checkbox"/> Tools, Equipment and Materials <input type="checkbox"/> Rural Energy, Bioengineering and Water <input type="checkbox"/> Rural Railroad	As detailed in roadmap document	X	x	x	X
	<input type="checkbox"/> Promote policies for local production of agricultural machinery	NEC to collaborate with MDAs other engineering associations	X	x	x	X
4. Promote Quality of Engineering Outputs: by	<input type="checkbox"/> Regularly publish the journal (JAET) and organise conferences/	NEC	x	x	x	X

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
advocating standards of agricultural engineering processes and products.	workshops/forums to disseminate opinions and findings on key agricultural and bio-resource engineering issues.	Branches Working groups				
	<input type="checkbox"/> Develop a programme for identifying and supporting commercialisable research outputs and innovations and facilitate their commercialization through collaboration with relevant agencies.	NEC to create a unit/committee to facilitate the achievement this. Interact with TETFUND, NOTAP, NACETEM etc.	x	x	x	X
	<input type="checkbox"/> Facilitate the development of agricultural engineering standards and codes	NEC to collaborate with SON and NCAM	X	x	x	X
	<input type="checkbox"/> Promote professional competence, compliance and control by undertaking special case studies and targeted consultancies	NEC to collaborate with universities, Research Institutes, TETFUND, COREN, NSE, SON and NCAM	X	x	x	X

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
	<input type="checkbox"/> Promotion of innovativeness through design competitions, etc.	NEC, Branches In collaboration with private sector organizations	X	x	x	X
	<input type="checkbox"/> Promote acquisition of production facilities by agricultural machine manufacturers at subsidized rates	NEC in collaboration with CBN and other relevant MDAs	X	x	x	X
5. Collaborate with Other Institutions: to learn and share best practices in the development of agriculture through science, engineering and technology	<input type="checkbox"/> Develop relationships with the leadership of agricultural engineering Ministries, Departments and Agencies of Government, Universities and Research Institutes as well as international bodies (ASABE, PASAE, CIGR, etc.) to develop and promote best practices.	NEC Branches	X	x	x	X
	<input type="checkbox"/> Engage with NCAM on the development and promotion of the profession	NEC Braches	x	x	x	X
	<input type="checkbox"/> Engage with relevant Professional Bodies/Institutes (SON, COREN) on the development and utilisation of agricultural engineering Standards.	NEC	X	x	x	X

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
	<input type="checkbox"/> Establish and strengthen relationships with private, public and international organisations and institutions regarded as interested and having influence in assisting NIAE in achieving its mission.	NEC to establish a partnership sub-committee to promote this	X	X		
6. Effective Leadership: to develop and implement a governance and organisational structure to be able to deliver value to its stakeholders	<input type="checkbox"/> Establish effective secretariat at the headquarters and branches involving employment of necessary appropriate staff, infrastructure and effective operations.	NEC	X			
	<input type="checkbox"/> NIAE national secretariat to promote establishment and strengthening of branches.	NEC	X	X		
	<input type="checkbox"/> Establish a website and relevant social media platforms for NIAE and ensure that they are active in promoting the institution and its activities.	NEC	X	X	x	X
	<input type="checkbox"/> Branding of NIAE, providing platforms for thought leadership and strategic communication to critical stakeholders	NEC	X	X	x	X
7. Membership Commitment: To develop and implement policies and processes to promote active participation and	<input type="checkbox"/> Establish a website and relevant social media platforms for NIAE and ensure that they are active in promoting the institution and its activities.	NEC	X	X	x	X
	<input type="checkbox"/> Establish and maintain a comprehensive database of members,	NEC	X	x	x	X

Strategic Objectives	Strategic Initiatives	Responsible Party	Period (Yr.)			
			Phase I 0-5	Phase II 6-10	Phase III 11-20	Phase IV 21-30
commitment of members and fellows	and possible partnerships with public and private organizations, academic, research and professional institutions.					
	<input type="checkbox"/> Undertake membership drive for NIAE and career_counseling for students	NEC in collaboration with relevant HR organisations	X	X	x	X
	<input type="checkbox"/> Establish business arm for the institution	NEC	X			
8. Sustainable Finance: To develop and maintain sustainable funding strategies	<input type="checkbox"/> Establish fund raising strategies to fund the activities of NIAE possibly involving Advisory services for fees, Subscriptions, Endowments, Consultancy activities, etc.	NEC Branches	X	x	x	X
	<input type="checkbox"/> Establish business arm for the institution	NEC	X			

