Florida A&M University
[School of the Environment]

Strategic Plan
2017 – 2022

[Victor Madu Ibeanusi, Ph.D., Dean]

Message from the Dean

The School of the Environment continues a legacy of excellence, which two decades ago started as the Environmental Sciences Institute (ESI). The academic foundation that was laid and built upon over the years continues to provide great opportunities as students pursue graduate and undergraduate degrees in Environmental Sciences and Environmental Studies that prepare them to address local, national and global issues.

For example, from 2001 until 2016, Florida A&M University, through the School of the Environment, has received funding from the National Oceanic and Atmospheric Administration (NOAA) to support research areas in ecosystem processes, forecasting & modeling, human dimensions, and ecosystem characterizations supporting the vast majority of students in both undergraduate and graduate degrees. This legacy continues through a new award of $15.4M that positions SOE to lead a new NOAA Center for Coastal and Marine Ecosystem for the next five years and beyond.

Additionally, successive funding that includes a new grant from the Department of Energy Savannah River Nuclear Solutions on remediation of radionuclides, and toxic metals at Savannah River Site, which include funding to support graduate and undergraduate students are creating new optimisms among faculty and opportunities for partnerships and collaborations amongst SoE faculty and other STEM programs at FAMU with National Labs. Furthermore, a new National Science Foundation grant to support faculty and student research on interactions among predators of bacteria in microbial loop dynamics, and a program on Interdisciplinary Teaching about Earth for a Sustainable Future (InTeGrate) are indications of the high productive research contributions of SoE to FAMU's Strategic Plan.

We are maintaining this legacy of excellence but also creating new learning environments to address other emerging areas of global, national and local concerns. Through the EnergyWaterFoodNexus, as a new science enterprise, the School of the Environment has taken a bold step in addressing the vexing global challenges to access to safe water, energy, and food security. The nexus approach is based on the premise that action in one sector impacts the other. Therefore, the search for solutions must simultaneously investigate all three sectors in a new science enterprise. Talented students will be recruited and trained to advance this new science enterprise. With two successful international summits, securing a trademark from the US Patents and Trademarks Office to enable commercialization of research outcomes, and an ongoing effort to build a FAMU Hub, SoE seeks to build an Integrated Metabolic Hub (FAMU Hub) from an existing building to establish the interactions of the Food, Energy, and Water Systems as a **Platform for Open Innovation**. The Hub will demonstrate a new sustainable infrastructure where innovative technologies for water, energy, and food can be integrated.

Collectively, the outcome of these efforts are spurring new research innovations and training of students who will become inspired to address national priorities and solve real-world environmental problems in their local communities and beyond.

Florida A&M University
Mission Statement

Florida Agricultural and Mechanical University (FAMU) is an 1890 land-grant institution dedicated to the advancement of knowledge, resolution of complex issues and the empowerment of citizens and communities. The University provides a student-centered environment consistent with its core values. The faculty is committed to educating students at the undergraduate, graduate, doctoral and professional levels, preparing graduates to apply their knowledge, critical thinking skills and creativity in their service to society. FAMU's distinction as a doctoral/research institution will continue to provide mechanisms to address emerging issues through local and global partnerships. Expanding upon the University's land-grant status, it will enhance the lives of constituents through innovative research, engaging cooperative extension, and public service. While the University continues its historic mission of educating African Americans, FAMU embraces persons of all races, ethnic origins and nationalities as life-long members of the university community.

Vision Statement

Florida Agricultural and Mechanical University will be recognized as a premier land-grant, doctoral-research University that produces globally competitive graduates.

Core Values

Scholarship• Excellence• Openness• Fiscal Responsibility• Accountability• Collaboration• Diversity• Service• Fairness• Courage• Integrity• Respect• Collegiality• Freedom• Ethics• Shared Governance

[School of the Environment]
Mission Statement

The mission of the FAMU School of the Environment is to provide instruction, conduct research, engage in professional and community service on the local, national, and international levels, and facilitate technology transfer which will result in protection of the environment and the development of remedies for existing environmental problems; the education of communities on environmental science and policy issues; and the scientific and intellectual preparation of students who are uniquely prepared to address present and future interdisciplinary environmental science and policy issues.

Vision Statement

To provide instruction, conduct research, engage in professional and community service on the local, national, international levels, and fascinate technology transfer which will result in protection of the environment and the development of remedies for existing environmental problems

Core Values

Excellence Scholarship• Service• Diversity• Integrity• Accountability• Collaboration• Fairness• Respect• Collegiality• Ethics• Shared Governance*

School of the Environment
Strategic Overview

External Scan

A description of the external environment as it affects the College/School/Division. Highlight current strengths, opportunities, and threats.

Current strengths lie in the areas of:
- Coastal and Marine Ecosystem Research
- EnergyWaterFoodNexus
- Environmental Microbiology/Biotechnology

These areas attract internal, external, and international collaborations and maximizes individual faculty funding.

A major threat would be the decline in funding of HBCUs. Most of the capacity building grants such as from United States Department of Agriculture are mainly set aside for the College of Agriculture. There is also a decline in funding addressing environmental programs from agencies such as the Environmental Protection Agency, Department of Defense, and Department of Energy, which in the past would support and encourage submission of proposals from HBCUs. In addition, a faculty received a grant award from Sea Grant and the disbursement of the funds for FY 2018 is at the mercy of being eliminated due to Congressional budget cuts.

Internal Scan

Teaching load needs to be significantly reduced such that faculty can be more productive to attract grant funding. Salary inequity, salary inversion and merit based rewards dampen productive faculty morale. Funding for faculty development and enhancing research infrastructure needs to be significantly improved. For example, SoE does not even support costs for faculty to ship or receive pre-paid materials for research such as samples or bacterial cultures. Outdated equipment, lab facilities and softwares are other areas that need improvement. Recent successes include two major grant awards from DoE's MSIPP program focused around environmental microbiology and biotechnology. PIs of such major awards need to be rewarded and applauded by faculty spotlights on the webpage, merit based rewards, incentives such as inclusion of 20% monies paid as lump sum generated from grants procured, which are beyond what the faculty makes during the academic/calendar year.

Additionally, SoE has demonstrated successes in other notable areas of FAMU's Strategic Priority Areas:

1. Enrollment
- During the period of fall 2013-fall 2017, undergraduate enrollment increased by 50%.
- Total enrollment (undergraduate and graduate) increased by 40%
- Using the cohort of fall 2014, average retention rate ranged from 70-100%. It means that the number of students graduating from SoE will begin to increase in proportion to our retention rate. It also means that the majority of our students starting fall of 2018 will graduate in 4 years instead of the 6-year graduation rate currently being used at FAMU.
- Average GPA of 3.0

2. **GRANT SUBMISSIONS FROM 2013-2017**

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total
Total proposal submission	8	10	12	9	13	52
Total amount of awards	3	4	4	5	4	20
PERCENT AWARD*	**38%**	**40%**	**42%**	**56%**	**31%**	**38%**

*The percent of successful awards at the School of the Environment for each of the fiscal years from 2013-2017 is higher than the funding rate for NSF grants for average duration of 3 years awards, which is 10% or less (NSF Funding Profile FY 2016)

Despite these increased productivities in key areas with tangible outcomes, the face of the faculty at SoE has remained the same since the last 20 years. That is, no new faculty member has been hired to champion new areas of increased activities. There is also an added pressure that comes from student advising. For example, SoE requires undergraduate senior thesis and defense as part of the fulfillment of the degree program in Environment Sciences. This means that each undergraduate student from the junior year is

required to constitute a senior thesis committee of at least 3 faculty members that is similar for our MS students. Consequently, most faculty members are actively involved in student research supervision. Request for at least two new faculty lines have continuously been submitted over the past three fiscal cycles with no support. To keep the pace of increased growth or expectation as described in our strategic priority areas, approval for new faculty lines are urgently needed. Also needed are funds to support faculty overloads to support graduate progression

Strategic Priority 1 – Exceptional Student Experience

Goal 1: Student Success (addressing retention/graduation rates; and degree production)

Strategy	*Actions/Steps to Operationalize Strategy*	*Responsible Person/Unit(s)*	*Timeline*
Strategy1.1:A Achieve retention rate of 90% through exploratory research for all first year students	Incorporate the scholar-in-residence undergraduate success program, an initiative that mandates all first year students to engage in exploratory field and in-house research experience	Dean, Core Lab Manager and faculty instructor	Achieve retention rate of 80% by fall of 2022
Strategy 1.2: 100% of faculty will use Blackboard for course management and intrusive advising targeted to students with low grades	Incorporate use of Blackboard as part of faculty evaluation and require faculty to register for a training session on the use of Blackboard and other use of technology in classroom. Recruiter will be required to compile grades of students and direct low grades students for advising.	Dean; Recruiter	Achieve 90% by Fall 2018
1.3. Achieve 80% internship experience for all undergraduate students	- Identify programs that fund summer internships such as the Minority Serving Institutions Partnership Program (MSIPP) at Oak Ridge National Laboratory and Savannah River Ecology Laboratory (https://orise.orau.gov/msipp/) http://www.srs.gov/general/srnl/msipp/internships.htm -Populate a list of top 10 student professional development opportunities by spring 2018 semester, that provide funding support for environmental science, environmental advocacy, environmental justice and environmental literacy programs targeted at enhancing the education and training of minority populations.	Coordinator of Academic Programs	Achieve target by Fall 2022

Key Performance Funding Metrics: #4, #6, #8, #9
Goal 2: Enrollment

Strategy	*Actions/Steps to Operationalize Strategy*	*Responsible Person/Unit(s)*	*Timeline*

Strategy 2.1: Recruit a minimum of 20 undergraduate students each academic year	Organize annual You-And-Your-Environment (Y-A-Y-E) Day for high schools in the Tallahassee area	Dean, Recruiter	Achieve 90% by Fall 2022
Strategy 2.2: Recruit 15 AA students by 2022	Establish articulation agreements; semester presentations at TCC and other community colleges; and invitation of AA students to SoE	Dean and Recruiter	Achieve 70% by fall 2022
Strategy 2.3. Implement online courses in Environmental Science and Environmental Studies by fall 2018	Faculty training on online courses and recruit faculty adjuncts to complement faculty efforts.	Dean; Assistant Dean	Fall 2018

Key Performance Funding Metrics #4, #5, and #6

Strategic Priority 2 – Excellent and Renowned Faculty

Goal 2.1: Research Productivity and Recognition

Strategy	Actions/Steps to Operationalize Strategy	Responsible Person/Unit(s)	Timeline
Strategy 2.1.1. – 60% of faculty are expected to submit research grants each academic year	Reward productivity through release time; and salary adjustments for faculty with sustained productivity	Dean	fall 2022
Strategy 2.1.2 Achieve a target of $8,000,000	Establish three Research thrust areas to encourage collaboration among and other institutions members	Dean	Fall 2022
Strategy 2.1.3. Achieve a minimum of 9 peer reviewed publications with impact factor of 3 or higher each year	-Support faculty travel to present at a national conference -Incorporate one publication each year as a requirement in faculty evaluation.	Dean; Faculty Research teams	Fall 2022

Key Performance Metrics 3, 4, 6 & 8A, 10

Strategic Priority 3 - High Impact Research, Commercialization, Outreach and Extension Services

Goal 3.1: Advance research areas of global, national and local concerns

Strategy	Actions/Steps to Operationalize Strategy	Responsible Person/Unit(s)	Timeline
Strategy 3.1.1: Establish research thrust areas with national global implications	Establish core research areas in: 1)Coastal & Marine Ecosystem Research (CCME); 2)EnergyWaterFoodNexus, and 3) Microbial Ecosystems and Biotechnology	Dean and lead faculty members	Fall 2022
Strategy: 3.1.2. Enroll a minimum of 10 graduate students each academic year	-create a pipeline to recruit students from institutions with environmental science degree programs -Encourage faculty to submit at least one proposal each year that include funding for students	Dean, Recruiter; Faculty Research Teams	Fall 2022
Strategy 3.1.3. Establish	-organize annual fund raising to support	Dean, Recruiter,	Fall 2022

		Budget Coordinator	
both summer and academic year outreach for K-12	program -Organize annual Y-A-Y-E (You and Your Environment) Day for high schools in the Tallahassee area		

Key Performance Funding Metrics: #3, #4, #6, #8, #10

Strategic Priority 4 - Transformative Alumni, Community and Business Engagement

Strategy	*Actions/Steps to Operationalize Strategy*	*Responsible Person/Unit(s)*	*Timeline*
Strategy 4.1.1: Establish an annual alumni/private sector fund raising to support student scholarship	Annual alumni and private sector reception fund-raising initiative	Dean and Budget Coordinator	On-going
Strategy 4.1.2. Create an alumni data base	-Graduating students will be required to complete an exit profile	Coordinator of Academic Programs	Fall 2022

Key Performance Metrics: #3, #4, #5, #6, #10

Strategic Priority 5 - First-Class Business Infrastructure

Strategy	*Actions/Steps to Operationalize Strategy*	*Responsible Person/Unit(s)*	*Timeline*
Strategy 5.1.1: Establish a corporate alliance to advance student scholarships and internships	Establish a Private Sector Network (PSN) to raise funds.	Dean and staff	Fall 2018
Strategy 5.1.2. Recruit & retain diverse and excellent staff	-Each staff will be required to register and complete at least one professional development training each academic year.	Dean	Fall 2022

Key Performance Metrics: #3, #5, and #6, #10

Strategic Priority 6 - Outstanding Customer Experiences

Strategy	*Actions/Steps to Operationalize Strategy*	*Responsible Person/Unit(s)*	*Timeline*
Strategy 6.1.1: Document student complaints -Create marketing brochures to increase visibility	Log of student grievance and a process for filing grievance.	-Coordinator, Research Programs/Services, -Dean/OPS	Fall 2018

Key Performance Metrics: #5, #6, #8