

Yale school of forestry & environmental studies

STRATEGIC PLAN

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FOREWORD: A Legacy of Impact

The Yale School of Forestry & Environmental Studies has an important legacy of impact for a sustainable environment. Yale University alumni Gifford Pinchot and Henry S. Graves (1889 and 1892, respectively), established the School in 1900 after receiving Forestry degrees from Europe. Pinchot created the U.S. Forest Service, was its first leader, advocated for the "conservation of natural resources," and with his family, endowed the Yale Forest School. Henry S. Graves became the first Dean and intellectual leader. His writings about the importance of national forest, it seems to me, could have been the foundation for the idea of "ecosystem services," as he wrote about the value of forests beyond their timber.

Graduates from our School – 4,700 and counting – have been leaders in forestry, natural resources and environment for more than a century. Among our first was Aldo Leopold (1909), who developed the land ethic, promoting the strong link between human health and the health of the land. Our alumni share a passion for the outdoors and for environmental sustainability, and work in NGOs, government, business, and academia all over the world.

Over the years, the School has broadened to meet the new challenges facing the environment. In 1972 the School changed its name to School of Forestry & Environmental Studies to recognize that it is concerned with the scientific understanding and long-term management of all ecosystems for sustainability and human benefit.

Now in its second century, our School's research, teaching, and practice still address forest science and management, but also a broad range of issues related to the health of the planet and human-environment interactions. Our students hail from nearly every continent. Under the leadership of Dean Gus Speth (1999-2009), we became an explicitly global school, focusing on international challenges, with a spectacular new LEED Platinum building, Kroon Hall. My predecessor, Sir Peter Crane (Dean 2009-2016), dramatically increased the scholarly productivity of our School, and improved opportunities for diverse students by catalyzing new scholarships.

The entire School community has worked together to develop a Strategic Plan that is highly aspirational. It builds on our strengths, addresses our gaps, and focuses on our role in this extraordinarily challenging and unique time in history for the environment. We cannot be all things for all people. We can, however, exert our energies toward a common vision—knowledge and leadership for a sustainable future—and build on our legacy of impact through our scholarship, teaching, and practice. I am committed to ensuring that we make tremendous progress toward achieving our aspirations.

Dean Indy Burke, May 24, 2017

CALL TO ACTION

The Yale School of Forestry & Environmental Studies has been at the forefront of bringing science to solutions for over 100 years. Our history is steeped in the kinds of path-breaking scholarship, practice, and impactful engagement that advance the solution of complex natural resource and environmental challenges, and our graduates become nationally and internationally renowned environmental leaders.

Today, we face an increasing and widely diverse array of environmental challenges – requiring ever greater levels of innovative scholarship and leadership. With a sense of urgency and a spirit of dedication, our School seeks to honor and expand on its historical strength and commitment to provide leading scholarship and impact across the full range of issues we address.

We present here an ambitious Strategic Plan that strives to meet these challenges over the next 3-5 years, and beyond. Our Vision, Mission, and the Strategic Plan are grounded in our Core Values and Guiding Principles (see Box 1), and undergird our framework for efforts going forward.

VISION

Knowledge and leadership for a sustainable future

MISSION

Yale's School of Forestry & Environmental Studies aspires to lead the world toward a sustainable future with cutting-edge research, teaching, and public engagement on society's evolving and urgent environmental challenges.

OUTCOMES AND GOALS

We seek to realize two overarching outcomes:

- Broaden and deepen the School's impact on a sustainable future through scholarship, practice, training, and engagement.
- Strengthen the School's community of faculty, staff, and students knowing that this community shapes our daily lives and determines our collective success.

To broaden and deepen the School's impact, we commit to six major goals:

- Diversify our faculty, students, staff, and our partnerships more broadly so that
 we can think, act, and engage most effectively with the wide breadth of
 environmental challenges
- Invest in new 21st century environmental scholarship, problem solving, and leadership initiatives, by both building on our School's strengths and filling our School's gaps
- Define and provide the skills and knowledge for the world's environmental leaders in the 21st century
- Raise the effectiveness and recognition of the School's unique leadership and contributions to global and local sustainability challenges, including those at Yale
- More effectively engage and leverage Yale's network, particularly alumni and partners
- Ensure that our available resources match current and future needs, recognizing that this will require expanded fundraising and grant seeking efforts

To strengthen our community, we aspire to meet three goals:

- Recognize, value, and empower the wide range of individuals and contributions to ensure the success of our School's mission
- Create a sense of collective identity that instills pride and a willingness to contribute to the common good ("OneFES")
- Promote a diverse and inclusive School community that empowers all individuals

BOX 1: Our Core Values and Guiding Principles

CORE VALUES

Our Mission and Vision are grounded in seven fundamental Values:

Excellence: We promote and engage in path-breaking science, policy, and business models that build on a fundamental commitment to analytic rigor, data, intellectual integrity, and excellence

Leadership: We attract outstanding students nationally and internationally and offer a pioneering curriculum that defines the knowledge and skills needed to be a 21st century environmental leader in a range of professions

Sustainability: We generate knowledge that will advance thinking and understanding across the various dimensions of sustainability

Community: We offer a community that finds strength in its collegiality, diversity, independence, commitment to excellence and to lifelong learning

Diversity: We celebrate our differences and identify pathways to a sustainable future that respects diverse values including equity, liberty, and civil discourse

Collaboration: We foster collaborative learning, professional skill development, and problem-solving – and we strengthen our scholarship, teaching, policy work, and outreach through partnerships across the university and beyond

Responsibility: We encourage environmental stewardship and responsible behavior on campus and beyond

GUIDING PRINCIPLES

In pursuit of our Vision and Mission, we:

Build on more than a century of work bringing science-based strategies, ethical considerations, and conservation practices to natural resource management

Approach problems on a systems basis and from interdisciplinary perspectives

Integrate theory and practice – and provide innovative solutions to society's most pressing environmental problems

Address environmental challenges at multiple scales from local to global and multiple settings from urban to rural and from managed to wild—including working lands and landscapes

Draw on the depth of resources at Yale and the network of alumni that extends across the world

Create opportunities for research and policy application as well as professional development through a structure of faculty-led Centers and Programs

Provide a neutral forum to convene conversations on difficult issues that are critical to progress on sustainability

Bring special focus on the most significant threats to a sustainable future including climate change, the corresponding need for clean energy, and the increasing stresses on our natural resources

STRATEGIES AND ACTIONS

Our strategic planning exercise was inclusive, involving input from faculty, staff, students, alumni, employers of F&ES graduates, and other supporters. We identified strategies and actions to catalyze progress toward our outcomes and goals, as elaborated above. Most of the strategies are designed to meet more than one goal (see Figure 1). We intend to act upon our action items within the next year, enlisting implementation teams that will be composed of faculty, staff, and students, whenever possible. We will assess progress toward our goals once annually for the next five years, and adapt our strategies as needed.

FIGURE 1 Outcomes, Goals and Strategies. We organize our plan around two broad outcomes and 9 major goals. The strategies we will pursue synergistically reinforce multiple goals, as depicted in the figure.

OUTCOMES: IN ORDER TO	GOALS: WE WILL NEED TO Diversify our faculty, students, staff, and our	STRATEGIES: THEREFORE WE WILL Increase faculty, staff, and student diversity
	partnerships more broadly so that we can think, act, and engage most effectively with the wide breadth of environmental challenges	Develop a Climate Change Initiative Develop an Urban Initiative
	Invest in new 21st century environmental scholarship, problem solving, and leadership initiatives, by both building on our School's strengths and filling our School's gaps	Develop an Environmental Communications Initiative Develop an Environmental Data Science Initiative Leverage the School's convening power by hosting an ongoing Yale Environmental Dialogue
Broaden and deepen the School's impact on a sustainable future	Define and provide the skills and knowledge for the world's environmental leaders in the 21st century	Integrate efforts on environmental justice and environmental health Incentivize interdisciplinary research and teaching Strengthen the doctoral program
	Raise the effectiveness and recognition of the School's unique leadership and contributions to global and local sustainability challenges, including those at Yale	Establish a curriculum structure that effectively balances breadth and depth through foundational offerings and specializations Develop a School strategic communications plan and ensure sufficient resources and human capital to implement it
	More effectively engage and leverage Yale's network, particularly alumni and partners	Establish and validate alternative metrics for success beyond our scholarship Reinforce and establish joint programming and degree programs with Yale College and Yale Schools
	Ensure that our available resources match current and future needs, recognizing that this will require expanded fundraising and grant seeking efforts	Identify and engage with strategic partners outside Yale Establish the School as a core partner for sustainability across Yale Strengthen and leverage our Centers and Programs to increase the School's impact
Strengthen the School's community	Recognize, value, and empower the wide range of individuals and contributions to ensure the success of our School's mission Create a sense of collective identity that instills pride and a willingness to contribute to the common good ("OneFES") Promote a diverse and inclusive School community that empowers all individuals	Provide greater diversity of opportunities for alumni engagement Actively pursue the means and resources to build and maintain a vibrant community Increase the amount and contiguity of the School's spaces for improved scholarship, growing programs, enhanced teaching, and increased interactions Build our endowment and gifts to support our priorities and to participate fully in the development and success of the Yale Campaign

INCREASE FACULTY, STAFF, AND STUDENT DIVERSITY

The Yale School of Forestry & Environmental Studies is committed to increasing the diversity of our community to advance our ability to understand complex environmental issues, to advance solutions, and to create leaders. We can, should and will do more to build the necessary racial, ethnic, gender, socio-economic, and political diversity within our community so that we remain a preeminent organization for environmental research, education and practice. We will commit the resources necessary to move toward broader diversity, particularly in the faculty. We will strive to develop further an environment that is transparent, inclusive, sensitive and informed about diversity – in its broadest sense – to ensure that we not only recruit the staff and faculty necessary for us to achieve our mission, but also retain them.

We take pride in our progress toward building diversity in our student body and look to our students and alumni to help guide us as we diversify our faculty and staff. We commit to building the processes and resources necessary to further diversify our student body, and recognize the importance of supporting both international and U.S.-based minorities, underrepresented socio-economic groups, and political perspectives, if we are to have the greatest reach and impact possible.

→ ACTION: CREATE AND STAFF AN OFFICE OF DIVERSITY, COMMUNITY AND INCLUSION, AND BUILD ON OUR RECRUITING EFFORTS TO TARGET A BROAD DIVERSITY OF POTENTIAL APPLICANTS

We will create a senior administrative position – and the organizational infrastructure around this position – focused on guiding the School strategically and practically in terms of building, representing and retaining Diversity, Equity, and Inclusion (DEI) across all levels. The new Office of Diversity, Community, and Inclusion will lead efforts to provide a forum for regular means of open and transparent discourse among faculty, students and staff on topics related to diversity and inclusion, with a focus on setting and attaining objectives that build F&ES as an organization. The office will also support faculty in their goals to present diverse perspectives and issues in their classes.

We will recognize the importance of diversity as we create and fill open positions within the School. We will focus a great deal of energy on recruiting from diverse candidate pools to ensure that new perspectives are represented and valued in our decision-making and communication. Doing so will enable us to build our culture and community most effectively to impact a sustainable future through scholarship, practice, training, and engagement with communities locally, nationally and globally.

We will set goals to make considerable progress in the near term to ensure representation of diverse perspectives that facilitate our intentions to broaden and deepen the School's impact on a sustainable future. We recognize that the different populations within our School, such as masters students and faculty, turnover at different rates requiring that we set recruitment goals with both shorter and longer-time horizons to ensure that we have impact now and into the future on current and emerging environmental issues.

DEVELOP A CLIMATE CHANGE INITIATIVE

We will solidify the School's strength in climate change science and policy, and work with partners across campus that complement our strength in climate change. Climate change is pervasive. It will impact all living beings, the environment, and the fabric of our social, cultural, economic and political ways of life. It is a formidable, overarching global sustainability challenge, creating an urgent and growing need for interdisciplinary scholarship, education, and communication. Many of our faculty members engage in leading scholarship and policy engagement to mitigate and adapt to climate change and build resilient biophysical systems that promote human health. Our students continuously seek more and better curricular offerings on climate, and we will develop a specialization in this area. We will advance and better coordinate our remarkable collective scholarship on climate change within the School, and across Yale, to provide a coherent curriculum on climate change, and to lead efforts on campus in dimensions of climate change where Yale has particular strengths.

ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO DESIGN AN INTERDISCIPLINARY PROGRAM IN CLIMATE CHANGE

An implementation team will design a program in climate change within the School. The team will make recommendations for how to advance interdisciplinary scholarship and teaching on climate change and climate change impacts, how to establish and maintain formal partnerships with other units within and outside Yale, how best to strengthen and integrate climate change and climate change impacts across our curriculum, and how to increase our impact through communication and outreach.

DEVELOP AN URBAN INITIATIVE

Urbanization is occurring at pace unprecedented in the Earth's history. Urban areas are becoming ever-more central to both environmental challenges and their solutions. Finding ways to inform and influence thoughtful urban growth and development will be key to a sustainable future. The School has extraordinary strengths in urban research and outreach at this time, with many faculty members focusing research on urban ecosystems, both independently and through our Hixon Center and its Urban Resources Initiative. We have tremendous opportunities to leverage the strength of urban scholarship and practice at the School and across Yale, and we are currently engaged in leading a university-wide effort to build a network for urban research, teaching and engagement. Within the School, we will also create coherent support for such research, education, and engagement.

ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO DEVELOP AND CATALYZE URBAN SCHOLARSHIP, TEACHING, AND PRACTICE

We will identify an implementation team to develop and catalyze urban scholarship and practice within the School. The team will produce recommendations for research opportunities, a specialization in urban issues for our professional curricula, guidelines for our strategic communications program to emphasize our existing and future strengths in urban studies, and the relationship of our own F&ES urban programs to a Yale-wide urban initiative.

DEVELOP AN ENVIRONMENTAL COMMUNICATIONS INITIATIVE

Even the best scholarship focused on solving problems cannot be implemented successfully if it cannot be communicated and translated to decision makers, thought leaders and the general public. Our School's students receive excellent training in environmental science, scholarship, and management, but in today's world our students also need advanced education and training in effective communication, collaboration and negotiation. The School needs to invest in new communication and collaboration courses, including visiting lectureships, professional and technical skills training, and online instruction for students to provide them with the necessary strategies, skills and tools to communicate effectively with decision makers and leaders across the political spectrum. The School also needs to further its leadership in the study of the use of online and social media to promulgate false environmental understandings in order to successfully mitigate the impact of erroneous beliefs.

The creation of an Environmental Communications Initiative could leverage existing strengths in world-class research and public engagement already present at the School to engage undergraduates, graduate students, faculty, and visiting scientists in formal coursework and workshops in environmental communication theory and practice; provide training for environmental professionals outside Yale to enhance communication in policy, advocacy, business, science and journalism; conduct basic and applied environmental communication research; and coordinate the great work being conducted by our Centers, Programs, and partners including the Yale Program on Climate Change Communications, Yale e360, Sage, Yale Environment Review, the Environmental Film Festival at Yale, the Peabody Museum, Yale Institute for Biospheric Studies, and many others.

→ ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO RECOMMEND OVERALL STRUCTURE AND CURRICULUM FOR ENVIRONMENTAL COMMUNICATION

We will establish an Environmental Communication implementation team (or Steering Committee). This group will be charged with making recommendations on the structure of an environmental communication initiative, the structure of courses and workshops to achieve the above mission, and the recommended partnerships across Yale (as well as with outside experts and partners) to engage in this goal.

DEVELOP AN ENVIRONMENTAL DATA SCIENCE INITIATIVE

The volume of data that potentially informs understanding about the environment and human interactions with the environment is undergoing a period of tremendous growth and emerging from a variety of sources. But, data alone do not create knowledge about environmental and sustainability challenges or their solutions. There is a need for, and current shortage of, professionals who can manage, analyze, and visualize data at scale. There are unexplored opportunities for leveraging data, digital technology, remote sensing, geographic information systems, and computation to generate new knowledge about people and their environment in order to inform a sustainable future. Such a future also depends on developing a more sophisticated understanding of the contemporary politics of environmental knowledge. Our faculty has unique strengths including spatial data science, ecological modeling, metadata analysis, statistics, and environmental social science. We have tremendous opportunities to leverage these strengths and Yale's commitment to, and expected investments in, data science to provide global leadership in ensuring that environmental studies benefits from in this exciting new area of interdisciplinary research. Within F&ES, we need to create coherent support for data science research, education, engagement, and communication.

→ ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO DEVELOP AND CATALYZE DATA SCIENCE SCHOLARSHIP, TEACHING, AND PRACTICE

We will identify an implementation team to develop and catalyze data science scholarship and practice within F&ES. The team will produce recommendations for research opportunities, explore a joint-degree with the new Department of Statistics and Data Science and a specialization within our professional curricula, establish a formal link to the Environmental Communications Initiative about communicating data to the public, provide guidelines for our strategic communications program to emphasize our existing and future strengths in data science, and provide ideas for the relationship of our own F&ES data science program to Yale's broader push in this area.

LEVERAGE THE SCHOOL'S CONVENING — POWER BY HOSTING AN ONGOING YALE ENVIRONMENTAL DIALOGUE

The Yale School of Forestry & Environmental Studies has international standing as a credible and authoritative source of knowledge with major influence in environmental arenas. At the same time, places to explore contentious issues as part of efforts to identify areas of shared values and ways forward are becoming more and more scarce. While our School already hosts several such efforts, it will do more. Forums will address complex and controversial issues, bringing together experts and bipartisan professionals, public officials, civil society leaders and other stakeholders. Such forums could focus on the scientific underpinnings of these issues, the social conflicts they engender and the possible technological, economic, policy and other solutions. It is important that these events culminate in publishable products to inform solutions, by disseminating the outcomes to interested parties across the globe.

→ ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO RECOMMEND STRUCTURES AND EXPECTED OUTCOMES FOR YALE ENVIRONMENTAL DIALOGUES

We will establish an F&ES implementation team (steering committee) for the Yale Environmental Dialogue, to scope out possible inaugural topics, the frequency of forums, the staffing needed, locations for the forums, strategic partnerships, and expected outcomes of the Dialogues. The Yale Environmental Dialogue will coordinate closely with the Environmental Communications Initiative.

INTEGRATE EFFORTS ON ENVIRONMENTAL JUSTICE AND ENVIRONMENTAL HEALTH

Issues associated with justice, social equity, and human health are inextricably linked to all environmental problems, including urbanization and climate change, toxic chemicals and pollution prevention, energy production and use, air and water quality, access to open spaces, and many more. The School's faculty members work in many of the realms of environmental justice and environmental health in our scholarship, practice, and impactful engagement, and we offer courses in this arena, though we have not historically had a coherent or sufficiently deep program. There are also exciting opportunities to engage with other professional schools in this arena, for scholarship, training, practice, and impactful engagement.

ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO DEVELOP GOALS AND RECOMMENDATIONS ADDRESSING JUSTICE AND HEALTH IN OUR SCHOLARSHIP, TRAINING, AND PRACTICE

We will charge an implementation team with developing goals and recommendations for addressing environmental justice and environmental health in our scholarship, training, practice, and impactful engagement. The team will specifically address the relationship of environmental justice to our curricula, opportunities for engagement on environmental justice and environmental health, integration with partners across Yale, and strategic communications around environmental justice and environmental health in our School.

INCENTIVIZE INTERDISCIPLINARY RESEARCH AND TEACHING

Interdisciplinary scholarship is critical for studying and developing solutions for the most complex issues of our day¹. These issues involve disciplines that span the natural and social sciences, engineering, mathematics, technology, and the humanities. Substantial barriers to interdisciplinary scholarship exist in academic settings, but so do many benefits. Given the importance of interdisciplinary work, and the difficulty of overcoming barriers, F&ES will emphasize training students to become highly adept interdisciplinary thinkers, capable of understanding the language of multiple disciplines, and bridging ways of thinking. The energy and enthusiasm that often accompany such efforts will be leveraged to improve our efforts at interdisciplinary teaching.

Facilitating Interdisciplinary Research. Committee on Facilitating Interdisciplinary Research, National Academy of Science, National Academy of Engineering, Institute of Medicine. 332 p. http://www.nap.edu/catalog/11153.html

→ ACTION: THE DEAN WILL DEVELOP MULTIPLE MECHANISMS TO REWARD INTERDISCIPLINARY TEACHING AND SCHOLARSHIP

We will offer more incentives for interdisciplinary scholarship and teaching. The Dean will develop competitive opportunities for obtaining seed funding to support novel, truly interdisciplinary scholarship whose results could catalyze new insights and new proposals. We will seek to reward interdisciplinary scholarship in tenure, promotion, and annual reviews, evidenced by the nature of the work, co-authorship, and the type of publications or other impacts. In concert with the curriculum review, the School's leadership will encourage faculty to team-teach across different fields, ensuring that full credit for a course is given for true teamwork in teaching. We will also continue to explore other vehicles for supporting and improving interdisciplinary teaching and outstanding teaching more broadly.

STRENGTHEN THE DOCTORAL PROGRAM

Promoting scholarly excellence is a core mission of our School and of Yale University as a whole. Our doctoral program represents one of our most fundamental scholarly endeavors – and our contribution to developing leaders who are trained to be cutting-edge scholars, positioned to understand and solve environmental challenges. Today, the F&ES doctoral program faces increased competition from peer institutions and is significantly undersized. In addition, doctoral students would benefit from more training in areas related to professional development that will prepare them for a myriad of career paths, including those outside academia. Strategic investments in doctoral programming could yield significant gains in doctoral student experience and training – and substantial enhancements in F&ES's scholarly reputation.

ACTION: DEVELOP SPECIFIC RECOMMENDATIONS ON TEACHING, PROFESSIONAL DEVELOPMENT, ADVISING, AND PROGRAM GROWTH

The doctoral program committee will develop specific recommendations for the faculty to consider regarding:

- 1 More meaningful teaching experiences
- **2** Science communications, professional development and leadership training for students seeking any career path
- **3** Clearer milestones and advising best practices
- **4** Strategies to grow the doctoral programs, including increasing resources and strategic recruitment.

ESTABLISH A CURRICULUM STRUCTURE THAT EFFECTIVELY BALANCES BREADTH AND DEPTH THROUGH FOUNDATIONAL OFFERINGS AND SPECIALIZATIONS

As the natural resource and environmental challenges that we face rapidly evolve, so must the F&ES curriculum. The distinguishing feature of our professional degree programs is their balance among interdisciplinary breadth, a focused area of study, and professional skill development. All three of these elements must be upgraded to ensure that our master's degree students understand today's environmental problems, can craft effective solutions, and lead in a professional work environment. While F&ES is world renowned for training students with these skills to excel in a range of environmental professions and sectors, we can always do better.

The breadth of F&ES course offerings stands apart among environmental schools, and the Master's of Environmental Management (MEM) is the only program of its type anywhere with such flexibility and so few prescriptive requirements. Many students are attracted to the flexibility and take advantage of it to great effect. Others would prefer a curriculum that provides more of a coordinated structure among course offerings, emphasizes areas of core knowledge, and creates more opportunities for cumulative, in depth learning. Students and alumni also noted a need for more of a program identity around areas of study, more opportunities for interdisciplinary problem solving in an applied real-world setting, better aligning of curricula with emerging careers, and a more strategic menu of professional skills development offerings.

ACTION: REVISE THE MEM CURRICULUM FOR THE INCOMING CLASS OF FALL 2018

Over the coming year, we will undertake a process to revise the MEM curriculum with the goal of implementation for the incoming class of Fall 2018. Based on discussions as part of the strategic planning process, the revised curriculum will include the following elements:

- 1 A defined menu of professional skills modules more closely integrated with the overall academic curriculum
- 2 Consideration of the development of a highly integrated course that all first-semester MEM students would take that draws on a range of F&ES faculty and focuses on exposure to disciplinary and interdisciplinary perspectives on real-world environmental problems
- **3** Identified areas of specialization within the curriculum, along with foundational requirements for all to ensure sufficient breadth of training for environmental professionals in the 21st century
- **4** A requirement that students choose an area of specialization, while maintaining the option for a self-guided specialization
- **5** More opportunities for capstone experiences where students can apply their knowledge in a real-world setting in line with the careers they intend to pursue

The Master's Program Committee will coordinate much of this work with frequent outreach to and participation of the broader faculty, Centers and Programs, and student interest groups. As part of the process, we will increase our focus on student advising and streamline faculty teaching to support curricular goals and faculty career development. In order to remain competitive in a changing landscape of learning modes, we will prepare a proposal to fund more online learning opportunities to complement our existing programs and/or pilot an online certificate program(s) to broaden the reach and impact of the School, and to create a possible additional source of revenue.

COMMUNICATIONS PLAN AND ENSURE SUFFICIENT RESOURCES AND HUMAN CAPITAL TO IMPLEMENT IT

The strategic planning process has caused us to re-focus our thinking about our Vision, Mission, and Core Principles and Values. As we develop our newly crystalized initiatives for focusing on 21st century environmental issues, we will develop a very clear idea of our niche. Building on this, we then need to communicate our strengths strategically to multiple audiences, in a consistent way that each member of the F&ES community reinforces throughout their internal and external interactions. We will accomplish this by developing a strategic communications plan.

ACTION: ESTABLISH AN IMPLEMENTATION TEAM TO CRISPLY ARTICULATE OUR NICHE

Charge an implementation team with developing a strategic communications plan. The plan should:

- 1 Crisply articulate the niche that our School holds
- 2 Develop a plan for the process of branding the School to match our identity as a leader in the 21st century, including engaging our community in determining the most effective visual identity and name. The resulting work should influence all of our publications, marketing, recruiting, our web site, and social media.

ESTABLISH AND VALIDATE ALTERNATIVE METRICS FOR SUCCESS BEYOND OUR SCHOLARSHIP

Excellence builds on respect. The respect the School has historically accrued was grounded in our excellence in scholarship, practice, and training. The School also earns respect for producing alumni who become leaders in academia, scientific research, business, government, and the nonprofit sector. In the 21st century, F&ES seeks to be valued and respected for the positive impact the School and its graduates make on the increasingly complex and dynamic world, as well as the anticipation of and solutions to future environmental challenges. It is important that the School is known and respected for the positive impact that the entire F&ES community makes on relevant and timely issues of the day that are of importance to society broadly. This sort of "impactful engagement" represents another essential element of respect.

ACTION: IDENTIFY AND COLLECT DATA FOR EVALUATING OUR IMPACT, POLICY INFLUENCE, AND OTHER TANGIBLE BENEFITS OF OUR WORK

We will develop an implementation team to identify and collect data for evaluating our impact, including our policy influence and other tangible benefits of our work. Staff will be tasked with regularly collecting data for the School at large, and informing the School's leadership team and faculty about our progress. Community members will report on their "impactful engagement" as part of their annual review. These specific School impact measures of success will be part of a broader measures and monitoring system established to track and refine implementation of this Strategic Plan over the next five years.

PROGRAMMING AND DEGREE PROGRAMS WITH YALE COLLEGE AND YALE SCHOOLS

We have an important partnership with Yale College in the undergraduate environmental curriculum; this is a critical way for the School to have impact on future leaders and engage across the campus. It is important that we continue to invest in this program through our teaching and by supporting the administrative needs. In addition, we currently have a joint doctoral program with the Anthropology department, multiple joint master's degree programs across Yale University (with Law, Management, Public Health, Global Affairs, Development Economics, Divinity, Architecture), and also with other institutions (Pace University, Vermont Law School, Tsinghua University, and Universidad de Los Andes). Some joint degree programs are highly enrolled and well-organized, and others less so. There are many opportunities for developing new partnerships for curricula that could attract students to address emerging environmental issues. It is time to review our joint programs, strengthen existing ones, and develop new ones where strategic opportunities lie.

ACTION: IDENTIFY PROGRAM LEADERS AND DEVELOP REVIEWS FOR EACH OF THE EXISTING JOINT DEGREES, AND CONSIDER NEW JOINT DEGREES

We will identify program leaders for the existing joint degrees, and request that each work with partners to develop reviews of the degrees. One, the joint School of Architecture and MEM degree, is particularly urgent, as there have been significant changes in personnel, and there is a growing number of interested students. We will identify new and emerging partnerships, beginning with a potential joint Master's of Engineering and MEM degree. The Master's Program Committee, through the curricular revision process, will be working on specializations; some of those may result in new versions of joint or interdisciplinary degrees. In doing so, we will also need to consider the impacts of joint degree students on our administrative and space capacity, financial model, and related issues.

STRATEGIC PARTNERS OUTSIDE YALE

To advance an agenda of "Science to Solutions," the School must have a wide range of partners outside the academy. Such partners provide ways for our students to connect their studies with the professional networks in which they plan to build their careers. The School and Yale have many such partnerships. But more should be done to think strategically about making the partnerships more effective, and expanding them to advance our goals.

ACTION: REVIEW AND ENHANCE ALL PARTNERSHIPS RELATED TO CURRICULUM, RESEARCH, PROGRAMS, INITIATIVES, AND CAREERS

Many of the actions noted under other sections above offer opportunities to review and enhance the School's strategic partnerships with non-governmental organizations, local to international government agencies, for-profit entities, and other universities. For example, as part of the work on specializations during the curricular review, the Master's Program Committee and/ or the specialization leaders will inventory the partnerships that the School has or would like to have that will best support students in particular specializations. Similar inventories can be conducted for the new initiatives on climate, urban science, environmental justice and environmental health, communications, and others noted above. The goal of these efforts should not be to control the range of partnerships centrally, but to determine how best to share information on their existence so that they can be strengthened over time. We can realize transformational impact by engaging with partners who will use and promote our scholarship, training, and practice, and who will help place our graduates in positions of leadership and influence. Finally, we will work with our Career Development Office to increase opportunities for internships and jobs through the process of engaging with strategic partners.

ESTABLISH THE SCHOOL AS A CORE PARTNER FOR SUSTAINABILITY ACROSS YALE

The Yale Sustainability Plan 2025 lays out an ambitious program for integrating sustainability into the scholarship and operations of the University. Our faculty members were critical in shaping this effort. The School's own Sustainability Action Plan, focusing on our own internal goals, remains under active development. Clearly, sustainability leadership for Yale must come from across campus. However, as advancing sustainable solutions for the future is so deeply embedded within our mission, we can and need to continue to be engaged partners – and a model school – with regard to this effort.

→ ACTION: "WALK THE TALK" WITH SUSTAINABILITY: DEVELOP AND SUPPORT RESEARCH, TEACHING AND ENGAGEMENT IN SUSTAINABILITY

The School's Environmental Stewardship Committee (ESC) will shift more of its focus to supporting efforts to use the School and the Yale campus as living laboratories for research, teaching and engagement by more of the School and Yale communities.

STRENGTHEN AND LEVERAGE OUR CENTERS AND PROGRAMS TO INCREASE THE SCHOOL'S IMPACT

There are currently 12 formally designated Centers and Programs within the School. They vary widely in the degree to which they conduct research, embrace multiple faculty, are inherently interdisciplinary, partner with other units across Yale, engage in student advising, and provide internship and other opportunities for student engagement with clients or real problems. They vary in their structures, the funding support (external vs. F&ES), the engagement in fundraising, advisory board existence and integration, and the staffing structures. There are great opportunities for leveraging the Centers and Programs to better integrate our scholarship, teaching, and engagement, and for supporting these so that they are better embedded within our School.

→ ACTION: EVALUATE THE MODELS OF CENTERS AND PROGRAMS AND MAKE RECOMMENDATIONS FOR BEST PRACTICES

The School leadership team will evaluate the models of Centers and Programs, identify areas in which we can capitalize on the Centers and Programs to increase our impact, consider criteria for School support of Center and Program staff, and make recommendations for principles for best practices for the Centers and Programs with the School. The result of this review will be used to strategically support and align resources with units that contribute most to the School.

PROVIDE GREATER DIVERSITY OF OPPORTUNITIES FOR ALUMNI ENGAGEMENT

Over 4,500 F&ES alumni are leaders throughout the world in a variety of sectors, including academic, government, non-government organizations, private business, and as entrepreneurs. The successes and perspectives of these alumni are currently not being tapped to the maximum potential; many alumni report being hungry for more interactions with the School. While the Career Office is highly successful in linking current students with alumni, and the Office of Development and Alumni Services has created a very effective mentoring program, there are more opportunities for networking to increase our impact.

→ ACTION: DEVELOP RECOMMENDATIONS FOR INCREASING THE DIVERSITY OF OPPORTUNITIES FOR ALUMNI INTERACTIONS

The Office of Development and Alumni Services will work with faculty and staff to develop recommendations for increasing the diversity of opportunities for alumni interactions. Specialization coordinators and Centers and Programs represent particularly ideal faculty and staff members to contribute to this effort.

ACTIVELY PURSUE THE MEANS AND RESOURCES TO BUILD AND MAINTAIN A VIBRANT COMMUNITY

The fundamental purpose of our School as an institution is to engage in environmental scholarship and problem solving. Often, this requires interdisciplinary research and teaching. This begins with community. Interdisciplinary engagement can only build from a wider community because it demands understanding of different perspectives, and involves integrating diverse viewpoints and expertise. Interdisciplinarity will flow more naturally when there is a community that respects and shares values and goals, with a culture of OneFES. We need to make this a part of our institutional DNA, and create structures and processes to support it.

→ ACTION: BUILD A CULTURE OF ONEFES THROUGH DEVELOPING AN ACTION AGENDA

Upon completion of this Strategic Plan, we will engage the students who developed a draft "Community Charter" (Appendix 2) that seeks to articulate what it means to be a vibrant School community – and work with them to develop an action agenda for community building over the coming year. Among the activities and structures that might be advanced:

- 1 A regular School-wide monthly event that gathers the entire community to hear members present on and discuss contemporary interdisciplinary environmental issues and how the School can bring scholarly knowledge and practice to bear on solving the problems related to diversity and sustainability
- 2 A committee of students, staff and faculty charged with organizing social events for the school tailored toward the personalities and work/life constraints of School community members. Such events could range from small faculty-student lunch gatherings to larger faculty, staff and student events
- **3** A School-wide communication strategy of regularly featuring and telling the stories of different students, staff and faculty
- **4** A commitment to having faculty present at staff meetings and staff present at faculty meetings to build and deepen understanding of how the business and HR operations in the School support faculty research, as well as enhance staff understanding of the needs of different research programs for business and HR support
- 5 New ways to engage staff in student mentoring, especially with regards to the professional aspects of their education (to be conducted by senior leadership, particularly with respect to Centers and Programs review)
- **6** Effective rewards, awards, promotions, and incentives to recognize individual and group contributions to the collective success of F&ES (senior leadership)
- **7** Performance planning, professional review, and appraisal processes that recognize contributions to the community and the collective success of the School.

INCREASE THE AMOUNT AND CONTIGUITY OF THE SCHOOL'S SPACES FOR IMPROVED SCHOLARSHIP, GROWING PROGRAMS, ENHANCED TEACHING, AND INCREASED INTERACTIONS

From FY08 (Kroon Hall opened in January 2009) to FY18, the School has grown by 59% in total expenditures, by 51% in master's degree student enrollment, by 55% in the total number of faculty and postdocs, and by 41% in the number of staff. As a result, we are very short on space for offices, classrooms, teaching laboratories, and research laboratories. In addition, the distance between the offices of some of our faculty and the School's core Sage-Kroon complex is so far that it limits the number of interactions, which are critical to our functioning as an interdisciplinary community. The Yale University space plan is underway, with major changes likely occurring nearby, and it is important to produce a space plan for the School in the next few months.

→ ACTION: DEVELOP A PLAN FOR LONG-TERM SPACE NEEDS

Senior leadership will develop a plan for long-term space needs in the near future. Phase 1 of the plan will provide a rationale for increased space, the estimated footprint for all types of space (those listed above as well as community spaces as recommended by the community team), and recommendations about contiguity/location. We will provide the space plan to the upper administration of Yale University, and engage and interact with the community (faculty, staff, students, and partners in School of Architecture) prior to launching a more specific, Phase 2 space plan with a process that will create a teaching and learning opportunity.

BUILD OUR ENDOWMENT AND GIFTS TO — SUPPORT OUR PRIORITIES AND TO PARTICIPATE FULLY IN THE DEVELOPMENT AND SUCCESS OF THE YALE CAMPAIGN

Fundraising is key to achieving our outcomes. We need to organize our goals and strategies into compelling packages and funding proposals for communicating to interested participants, prioritizing among our needs, and setting target dollar amounts and timelines for our fundraising. We have a great opportunity to harmonize with the Yale Campaign at this time.

→ ACTION: DEVELOP A STRATEGIC FUNDRAISING PLAN

We will develop a strategic fundraising plan through collaboration among our senior leadership team, our School's Development team, Central Development at Yale, Yale's upper administration, the School's Leadership Council, and other interested external stakeholders.

NEXT STEPS

Our goals are ambitious, and the strategies and actions will require diligent attention and focused energy. Implementation teams will be established during summer and early fall of 2017, and timelines set for each action item. We will closely monitor progress for each of the action items in light of the goals, and adaptively adjust our plan in January of 2018, and in each following year. We will develop a dashboard for tracking the metrics and timelines for each of the actions mentioned above.

APPENDIX 1:

Planning Process and Community Consultation

In December 2016, Dean Indy Burke sent a memo to the Yale School of Forestry & Environmental Studies community about beginning a strategic planning process, to be completed by the end of spring semester 2017.

The overall goals of the strategic planning process have been:

- 1 To refocus our community on our shared vision and mission, so that we all understand how each of our work contributes to the success of F&ES
- 2 To set priorities for the next 5 years

The strategic plan is intended to be a living document to evaluate ourselves against, and revise our strategies and actions as necessary to achieve the major outcomes. The charge memo stated:

"There are tremendous opportunities to further the reputation and impact of F&ES as the best interdisciplinary environment school in the world. We should capture this moment to sharpen our focus, to be ambitious in articulating our aspirations and developing strategies to achieve them. Along the way, we will be working in a very inclusive fashion, and will seek out opportunities to solicit feedback from all members of the F&ES community. We encourage you to participate actively, and want to hear your voice as we work through the process."

The themes of our Strategic Plan were organized into 6 major areas, and a leader was assigned to the team addressing each theme:

VISION, NICHE, AND IDENTITY

Professor Dan Esty

CURRICULUM

Professor Matt Kotchen (Master's) Professor Karen Seto (Doctoral)

DIVERSITY

Professor Mark Bradford

REPUTATION AND EXTERNAL RELATIONS

Professor Julie Zimmerman

INTERNAL COMMUNITY

AND INCLUSIVENESS

Professor Os Schmitz

EXTERNAL ADVISORY BOARD ADVANCES

TOWARD FUNDRAISING

Dean Indy Burke

Each theme had a team composed of resident faculty and staff, and a student representative, with a set of charge questions to guide the conversations. In addition to the charge questions, cross-cutting themes emerged from the faculty, related to potential opportunities for either developing new areas, or crystallizing existing foci as major priorities. Those include: sustainability (curricular and community engagement aspects); environmental communications (scholarship, practice, and curricular elements); environmental justice and climate change (scholarship, teaching, policy, and communications); and partnerships with Yale College and Yale professional schools (curricular, joint scholarship efforts).

Six Thematic Teams gathering input from the F&ES community. Vision, Niche & Identity; Curriculum; Diversity; Reputation & External Relations; Internal Community & Inclusiveness; and External Advisory Board formation.

Listening Phase

NOVEMBER 2016 - MARCH 2017

Faculty/Senior Staff Retreat (March 31, 2017)

Describing Phase

MARCH 2017

Narrowing Phase & Producing Final Plan

APRIL - MAY 2017

Final Plan complete

(May 24, 2017)

TIMELINE

Team Leaders were asked to engage the entire F&ES community in addressing their theme during a listening phase, and the community was informed that this was their opportunity to help build the school they would like F&ES to be. Teams used many different tools such as student town halls, staff meetings, survey tools, small group listening sessions, web-supported interaction tools, and other means of collecting information.

Following this listening phase that took place over the winter, teams worked to collate the feedback they received, and worked to narrow areas of foci, as they considered themes and tensions that arose. Throughout this period, teams continued to engage the F&ES community to get feedback and direction. The teams produced reports (available upon request to members of the F&ES community, along with summaries of the survey results), which were provided for an all-day retreat, further supporting our narrowing efforts.

This narrowing helped to form the final Strategic Plan report, above, which identifies a framework to support decisions about all the critical elements of our school—maintaining and raising the scholarly profile, investing in and fundraising for our top priorities, choosing and serving students who best match our mission, modifying our curriculum, hiring new faculty and staff, as well as branding and marketing our community and our programs. Our ultimate goal, however, was to enhance our community's sense of purpose and connection to a mission that matters.

STRATEGIC PLANNING EVENTS

04/28/17	School's Leadership Council strategic planning session, all teams
03/31/17	Faculty & Senior Staff Strategic Planning Retreat
03/06/17	SAC Community Forum: Strategic Plan, all teams
02/25/17	F&ES Alumni Association Board: Strategic Planning Session
02/24/17	Open Office Hours with Indy: Strategic Plan focus
02/23/17	Student Listening Session: All Teams
02/23/17	Launch of Online Feedback Form
02/15/17	Staff, Researchers, Postdocs, and Non-Resident Faculty Strategic Planning Session: Vision & Identity/Diversity
02/10/17	Faculty & Senior Staff Strategic Planning Meeting: Reputation/Vision & Identity/Diversity
02/10/17	Open Office Hours with Indy: Strategic Plan focus
02/08/17 –	02/20/17: Student Survey and Alumni Survey
02/08/17	Staff Strategic Planning Session: Internal Community
02/06/17	Doctoral Student Social: Strategic Plan focus
02/03/17	Open Office Hours with Indy: Strategic Plan focus
01/27/17	Faculty & Senior Staff Strategic Planning Meeting: Curriculum/Internal Community
01/26/17	EQUID Listening Session: All F&ES invited
12/14/16	Staff, Researchers, Postdocs, and Non-Resident Faculty Strategic Planning Session: Vision & Identity
12/09/16	Faculty & Senior Staff Strategic Planning Meeting: Vision & Identity/Diversity
11/16/16	SAC Student Forum with Associate Dean of Academic Affairs: Curriculum
11/11/16	Faculty & Senior Staff Strategic Planning Meeting: Introduction

APPENDIX 2:

Yale School of Forestry & Environmental Studies Community Charter

This document was prepared by 2017 students of the School to state a commitment to these foundations of our community:

DIVERSITY

Like a forest, diversity sustains us. We celebrate the diversity of backgrounds, life experiences, ideas, identities, and interests that are present in our community. We remain awake to persistent realities of marginalization and systemic inequalities. We are committed to making our school a leading institution and addressing issues of diversity and equity in the environmental field.

INCLUSION

Being part of the Yale community, and the community of the School of Forestry and Environmental Studies, is an extraordinarily privilege. With this privilege comes the responsibility of resisting exclusion and promoting cultures of open-mindedness and inclusivity.

We share an understanding that efforts to address society's gravest environmental challenges must draw from a range of knowledge, perspectives, and experiences and must actively engage with people from all geographical, racial, gender, socioeconomic, and epistemological backgrounds.

COLLABORATION

The environmental challenges of the present and future call us to work together. We are embedded in a world of relationships; our community is one that stresses the importance of these relationships, encouraging us to work cooperatively, combine different views and approaches, and share ideas and resources. We are stronger together than we are alone.

ENGAGEMENT

To be effective environmental practitioners, we must know how to engage respectfully, responsibly, and proactively with one another and with a diversity of people,

communities, and ideas. We embrace vulnerability, share our feelings openly, and listen actively. We empower one another by engaging in respectful communication across all spaces, academic, professional, and social. We are aware in all instances of voices missing from our work and conversations, and actively work to bring these perspectives into our fold.

SUPPORT

Like trees, we help support others and need others to help support us. Together we create and hold spaces that are nourishing, safe, and welcoming, allowing everyone in our community to express themselves freely and pursue their work and passions. We are both allies and accomplices to the realization of each other's goals, and we help one another to become mentors and models for the next cohort and the next generation.

ALIGNMENT

Just as working with natural resources requires holistic thinking, making our values manifest requires alignment across the many spheres of our community. We strive to put what we learn into practice, endeavoring that our own campus may embody our values and understood best practices. We remain aware of the structures, institutions, policies, guidelines, and laws that we work within, and mobilize our resources to identify and reshape misalignments.

IMPROVEMENT

Our community, like any healthy organism, continually adapts and improves. We seek consistent and robust evaluation that helps us identify where we can shift our attention and resources to be of greatest service to our peers, our passions, and our planet. We welcome positive change, and foster environments that are generative of new ideas and possibilities.

