



Yale Sustainability Plan 2025

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FROM THE PRESIDENT

As a higher education institution with a global presence, Yale is committed to sustainability planning and actions that forge new paths. The nine ambitions described here offer a set of unifying priorities to help foster academic exploration, encourage dialogue that spans academic disciplines, and create new ties between Yale’s operations and its teaching and research mission.

Yale is committed to academic leadership in the sciences, social sciences, arts, and humanities, and to providing a campus learning environment that cultivates innovators, leaders, pioneers, and entrepreneurs in all fields and for all sectors of society. This plan outlines programming and priorities related to academic exploration, diversity, and collaboration—all vital components of the vision for a more unified and interconnected Yale.

In 1716 Yale University moved to New Haven, Connecticut. As we commemorate this tercentennial, it is extraordinary to consider what New Haven and Yale will be like three hundred years from now. This document—with its nine ambitions and nine-year time frame—is the first step of what we hope will be a remarkable journey.

Peter Salovey,
President and Chris Argyris
Professor of Psychology

INTRODUCTION

This plan was developed at a significant time: in 2015 the United Nations announced both the Sustainable Development Goals and the Paris Climate Agreement. That same year, the State of Connecticut committed to reducing its greenhouse gas emissions 80% by 2050 and the City of New Haven launched Vision 2025, a plan for a sustainable, healthy, and vibrant city. In 2016 the City of New Haven added to these commitments by launching a new Climate & Sustainability Framework. These initiatives are at the heart of this document, which was carefully designed to reflect the global and local contexts for Yale sustainability. As an academic institution Yale's value proposition to society relates to dialogue, exploration, and the spirit of entrepreneurialism. This plan sets the stage for scholarship that challenges assumptions and helps to chart courses toward a more sustainable future. It was designed to invite communication and collaboration among academic disciplines and between the scholarly and operational sides of the University. This plan offers a dynamic and unifying platform for participation of all members of the Yale community, including students, alumni, faculty, staff, and leadership. It will also build on and enrich a diverse set of partnerships with leading institutions and networks in all parts of the world and in all sectors.

In addition to teaching, research, and service, to be a leader in higher education sustainability requires modeling operational excellence through activities such as committing to carbon neutrality. While the immediate impact of on-campus

initiatives may be limited, the concepts that are tested and assessed through Yale's activities have the capacity to inspire and inform action in other universities, businesses, the public sector, and beyond. These commitments also provide a set of values and priorities that inform the culture of sustainability that Yale students experience while on campus, which in turn positions them to be thoughtful and engaged professionals, practitioners, constituents, community members, and leaders.

This plan was eighteen months in the making. Key elements of this process included internal and external reviews of previous sustainability plans; focus groups and stakeholder engagement sessions with students, faculty, staff, and alumni; interviews with university leadership; and topic-specific workshops. The priorities outlined below truly reflect the Yale community in its broadest sense.

YALE SUSTAINABILITY VISION

This plan is based on a vision of a **Yale where sustainability is seamlessly integrated into the scholarship and operations of the university, contributing to its social, environmental, and financial excellence and positioning Yale as a local and global leader.** This statement reflects the United Nations definition of sustainability from the 1987 Brundtland Report, that says, sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. It also connects to and is supported by the University's mission statement, "Yale is committed to improving the world today and for future generations through outstanding research and

scholarship, education, preservation, and practice. Yale educates aspiring leaders worldwide who serve all sectors of society. We carry out this mission through the free exchange of ideas in an ethical, interdependent, and diverse community of faculty, staff, students, and alumni."

THE PLAN

The nine ambitions in the plan support the Yale Sustainability Vision and are intended to be aspirational but achievable by 2025. Each ambition is undergirded by a set of objectives, and those objectives are supported by goals that are measurable and time-bound. The ambitions and objectives are designed to be inclusive and comprehensive; the goals that support them are more specific and strategic in nature. There is a complementary implementation document that outlines specific strategies and tactics and identifies leadership and partners for each initiative.

The language of the plan is crafted so that the ambitions and objectives invite participation from both the academic and operational sides of the university, and the connections between them. The nine-year timeline for the ambitions of this plan will allow for and even require experimentation and innovation. Incremental milestones have been integrated into the plan in order to guide our journey; it will naturally evolve as the implementation of the plan progresses. Current goals will be achieved, and new goals will be added each year—all in support of the nine ambitions.

Finally, it is important to note that while the ambitions and objectives of this plan are designed to reflect both Yale's scholarship and

management, at the outset of the plan most of the goals are focused on campus operations. This is a sign of Yale's transition to a more integrated style of plan, and because of the expanded nature of the commitments here, new academic goals will be integrated into the plan each year.

AMBITIONS, OBJECTIVES, AND GOALS

Yale's 2025 sustainability commitments are organized into nine ambitions. These are detailed by 20 objectives and 38 goals. Each goal is supported by numerous strategies; key tactical milestones are included in the Steps and Targets tables.

Unless otherwise stated, all completion dates refer to the end of each fiscal year: June 30, and the baseline for measurable outcomes is fiscal year 2016.

FIGURE 1: THE HIERARCHY OF THIS PLAN

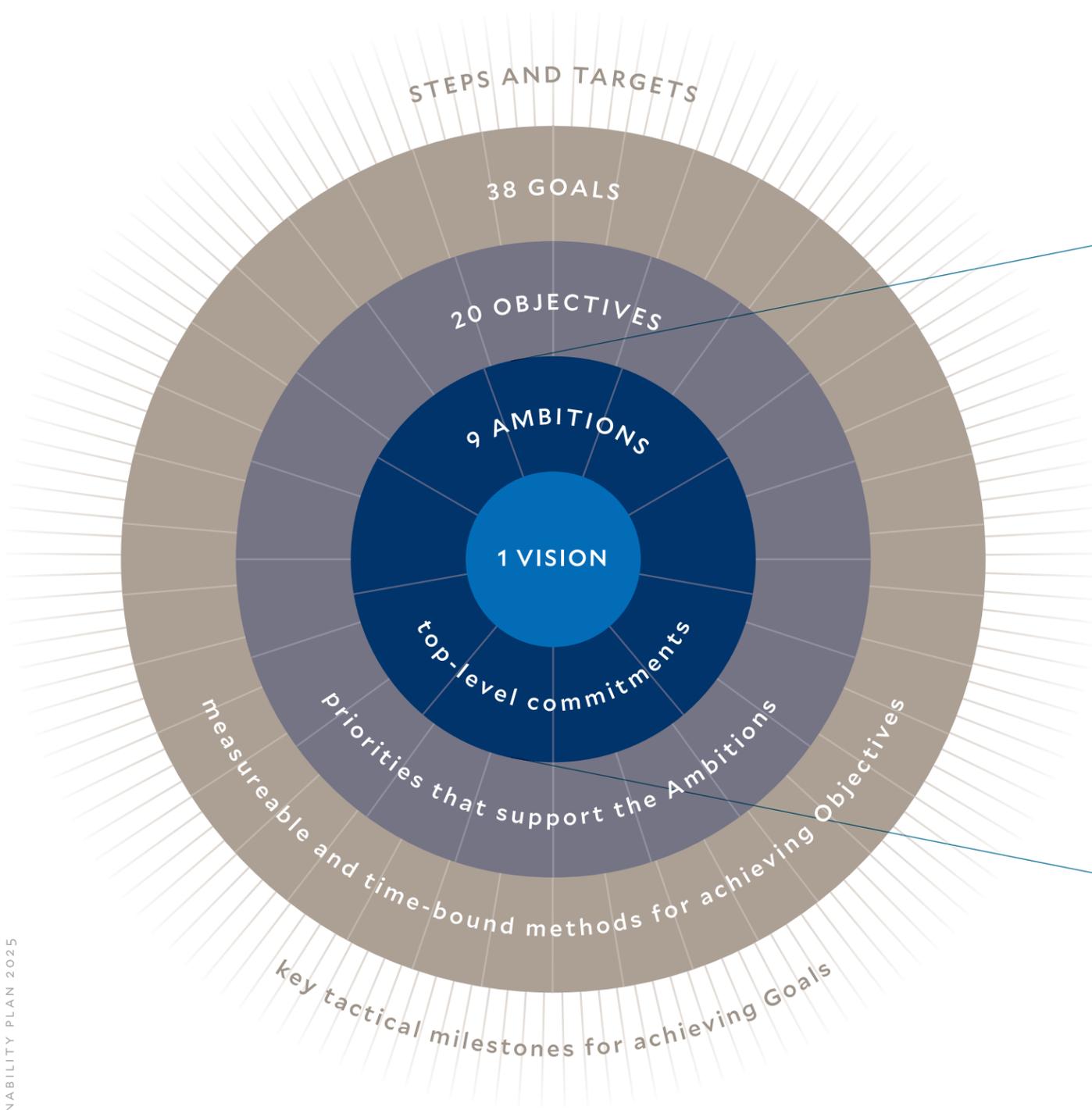
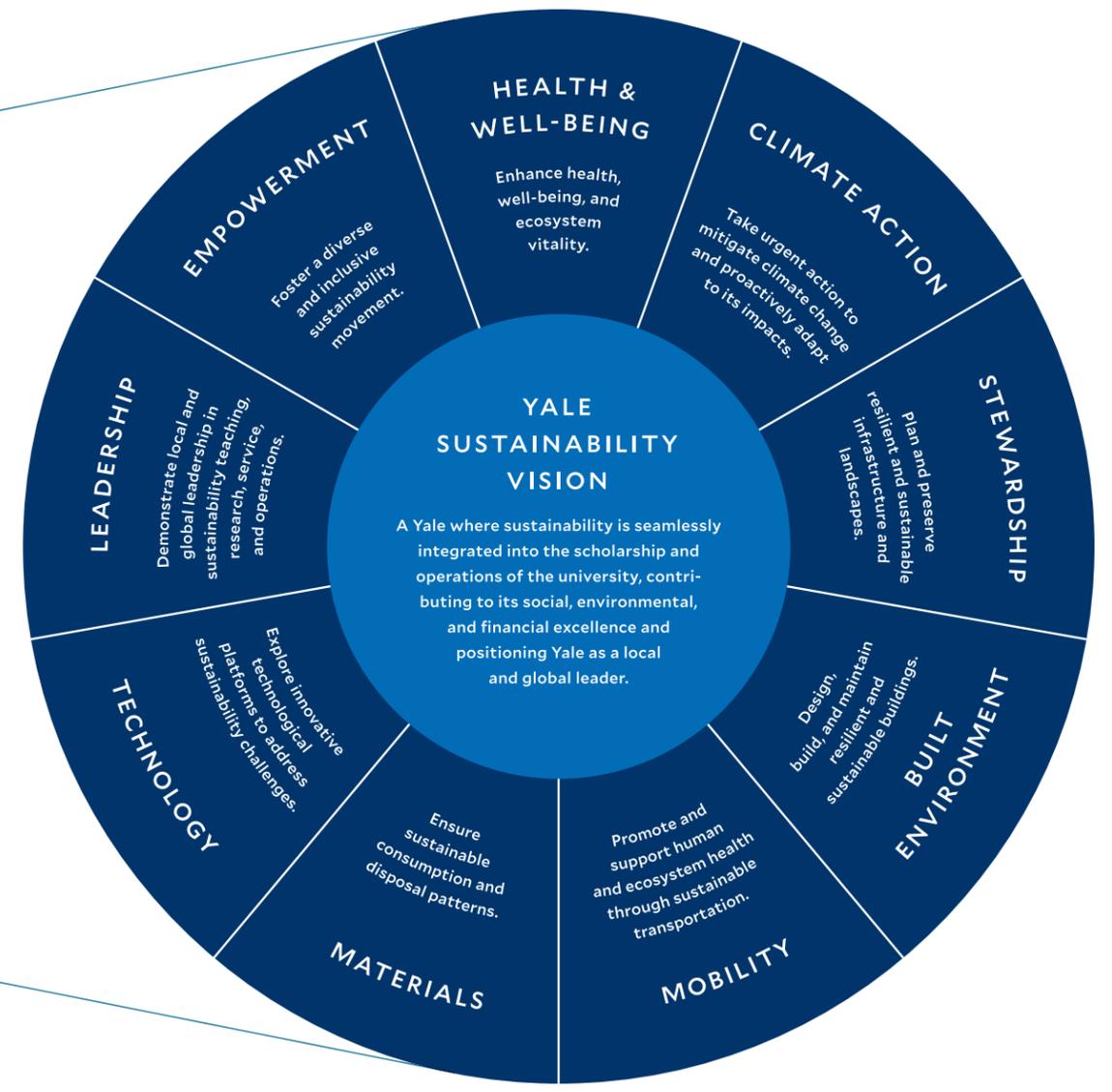


FIGURE 2: THE NINE AMBITIONS OF THE YALE SUSTAINABILITY PLAN 2025



Inspire the Minds that Lead the World



Environmental Performance Index

The Yale Environmental Performance Index ranks countries on how well they are managing their natural resources. For more information, visit epi.yale.edu.

Researchers in the School of Engineering and Applied Science have developed the “Whirl Cook Stove,” a simple cook stove combustion technology that is efficient, affordable, and dramatically reduces indoor air pollution, a leading cause of illness in developing countries.

Yale University Mission Statement

Yale is committed to improving the world today and for future generations through outstanding research and scholarship, education, preservation, and practice. Yale educates aspiring

leaders worldwide who serve all sectors of society. We carry out this mission through the free exchange of ideas in an ethical, interdependent, and diverse community of faculty, staff, students, and alumni.

Yale’s teaching and research reaches far beyond the classroom. From developing **national rankings** for resource use to improving **air quality** in rural developing country homes, Yale’s thought leadership builds a more sustainable world. In 2014 Yale President Peter Salovey formed a university task force of faculty, staff, and students to examine the feasibility of an internal carbon-pricing mechanism at Yale. After consulting with experts from academia, industry, and members of the Yale community, the group recommended that Yale test schemes for internally billing departments for carbon emissions in the 2015–2016 academic year. The team assessed four possible charging models in twenty buildings that vary in age, efficiency, and use. This allowed for considerable experimentation, learning, and innovation, and as a result Yale became the first academic member of the **Carbon Leadership Pricing Coalition** in 2016. Key findings from the pilot project will inform program expansion moving forward. For more information, visit carbon.yale.edu.

I commend Yale for being the first university to join the Carbon Pricing Leadership Coalition... Yale has shown great leadership in this area.
—Ban Ki-moon,
UN Secretary General, 2016

1 Leadership

DEMONSTRATE LOCAL AND GLOBAL LEADERSHIP IN SUSTAINABILITY TEACHING, RESEARCH, SERVICE, AND OPERATIONS

OBJECTIVE 1.1

ENRICH AND ENHANCE TEACHING, RESEARCH, LEARNING, AND SERVICE THAT EXPLORE AND CONTRIBUTE TO SUSTAINABILITY SOLUTIONS

Goal: Sustainability Working Groups

By 2017, establish a set of interdisciplinary working groups to be identified by faculty conveners to focus on teaching, research, and service around key themes such as urbanization, health, food systems, land use, and climate change.

Goal: Applied Research and Active Learning Program

By 2018, identify and support institutional pathways for applied research, active learning, and the use of the campus as a living laboratory.

Goal: Sustainability Network

By 2019, establish a network to foster communication across the university on sustainability research and teaching, and to foster connections between the university's scholarship and operations.

OBJECTIVE 1.2

ACT AS A CONVENING VOICE AND LEADER FOR DIALOGUES ABOUT LOCAL, NATIONAL, AND GLOBAL SUSTAINABILITY CHALLENGES

Goal: Town-Gown Collaboration

By 2018, establish a program to support projects in collaboration with the City of New Haven and local area groups that enhance sustainability goals.

Goal: External Collaboration

By 2019, develop a strategic plan to chart the course for ambitious national and international collaborations on sustainability research, teaching, and practice.

Goal: Sustainable Solutions Association

By 2020, formalize an alliance of Yale alumni, donors, and friends to cultivate enduring and meaningful dialogues about sustainability challenges and successes.

LEADERSHIP: STEPS AND TARGETS

| | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|------|----|----|----|----|----|----|----|----|
| SUSTAINABILITY WORKING GROUPS 2017 | | | | | | | | | |
| Identify faculty leaders from throughout the university. | ● | | | | | | | | |
| Create multidisciplinary topical working groups. | ● | | | | | | | | |
| Target: Initial set of working groups established | ● | | | | | | | | |
| APPLIED RESEARCH AND ACTIVE LEARNING PROGRAM 2018 | | | | | | | | | |
| Catalogue existing programs, courses, and activities. | ● | | | | | | | | |
| Identify new opportunities for innovation and experimentation on and off campus. | ● | | | | | | | | |
| Create a repository of data to be used for teaching and research as well as monitoring on-campus progress. | ● | ● | | | | | | | |
| Establish a program that highlights opportunities for all students to enrich their coursework with sustainability learning and service. | | ● | | | | | | | |
| Target: Program established | | ● | | | | | | | |
| SUSTAINABILITY NETWORK 2019 | | | | | | | | | |
| Inventory sustainability research and teaching in natural and social sciences, humanities, and the fine arts. | ● | | | | | | | | |
| Identify administrative leadership. | ● | | | | | | | | |
| Use results from the working groups and the Applied Research and Active Learning Program to inform the development of a strategic vision for Yale Sustainability Network. | ● | ● | | | | | | | |
| Target: Network established | | | ● | | | | | | |
| TOWN-GOWN COLLABORATION 2018 | | | | | | | | | |
| Catalogue existing town-gown partnerships related to sustainability and identify lead organizations and priorities. | ● | | | | | | | | |
| Convene existing entities and activities to advance projects that will benefit the city and the region. | ● | ● | | | | | | | |
| Target: Collaboration defined and commitments established | | ● | | | | | | | |
| EXTERNAL COLLABORATION 2019 | | | | | | | | | |
| Initiate a program to identify and communicate with partners and assess collaborative priorities. | ● | | | | | | | | |
| Create a strategic plan to set collaborative priorities. | ● | ● | | | | | | | |
| Target: Plan completed and launched | | | ● | | | | | | |
| SUSTAINABLE SOLUTIONS ASSOCIATION 2020 | | | | | | | | | |
| Initiate a program to identify and communicate with alumni and others to support innovative and experiential sustainability solutions. | ● | ● | | | | | | | |
| Set priorities and targets. | | | ● | ● | | | | | |
| Target: Plan completed and launched | | | | ● | | | | | |

a More Open, Connected, and Innovative Yale

Yale alumni become champions for sustainability in all sectors. Yale Blue Green offers a shared interest group for alumni who are engaged in environmental and sustainability issues and eager to connect with each other and the University on seeking solutions. For more information, visit environment.yale.edu.



For those who are keen to get involved, Yale offers the Sustainability Leaders. This diverse group pilots new initiatives and gains tools and knowledge to advance sustainable behavior throughout campus.

Opportunities to participate in Yale's sustainability activities include public lectures and webinars, monthly informational campaigns, an annual *Celebrate Sustainability* week, and more. The University offers informational programming and **opportunities for employees to get involved throughout the year; while on campus, Yale students can join clubs, take on paid internships, use the campus for hands-on learning, and participate in **city-based activities**. Upon graduation, the **Yale Blue Green** group is available to alumni from all of Yale's colleges, departments, and schools. For more information, visit sustainability.yale.edu.**

Students at the Yale Divinity School created "Nourish New Haven," a conference-based program focused on local food justice and sustainability aimed at educating participants about pressing food issues, connecting academic and grassroots efforts, and cultivating ongoing relationships for strengthening our local community.

2 Empowerment

FOSTER A DIVERSE AND INCLUSIVE SUSTAINABILITY MOVEMENT

OBJECTIVE 2.1

ENGAGE AND EMPOWER MEMBERS OF THE YALE COMMUNITY AROUND THEMES OF SUSTAINABILITY

Goal: Sustainability Action Plans

By 2020, create and implement Sustainability Action Plans for key academic, cultural, and administrative Yale communities to support the ambitions of this Sustainability Plan.

Goal: Sustainability Literacy

By 2020, develop and launch a sustainability literacy initiative for Yale students, faculty, and staff that assesses and improves sustainability awareness and empowers action.

OBJECTIVE 2.2

SUPPORT DIVERSITY AND INCLUSION IN LOCAL EFFORTS THROUGH EDUCATION AND COLLABORATION

Goal: Sustainability Inclusion and Justice Initiative

By 2018, launch an initiative to promote dialogue about sustainability, inclusion, and justice on campus and in New Haven.

EMPOWERMENT: STEPS AND TARGETS

| SUSTAINABILITY ACTION PLANS 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| Launch a program to support members of the participating departments in developing their plans. | ● | | | | | | | | |
| Create and launch an Action Plan for each Yale professional school that reflects its academic discipline and physical context. | ● | | | | | | | | |
| Develop and launch an Action Plan for each officer unit of the university. | ● | ● | ● | | | | | | |
| Target: Professional school plans launched | ● | ● | | | | | | | |
| Target: Officer unit plans launched | ● | ● | ● | ● | | | | | |
| SUSTAINABILITY LITERACY 2020 | | | | | | | | | |
| Using academic resources, establish benchmarks to measure sustainability understanding and values at Yale. | ● | ● | ● | | | | | | |
| Issue surveys and analyze outcomes. | | | ● | | | | | | |
| Launch campaigns to improve university-wide understanding of sustainability and change behavior. | | | ● | ● | | | | | |
| Target: Annual sustainability survey distributed | | | ● | | | | | | |
| Target: Sustainability literacy initiative launched | | | | ● | | | | | |
| SUSTAINABILITY INCLUSION AND JUSTICE INITIATIVE 2018 | | | | | | | | | |
| Create a working group with members of the Yale and New Haven communities. | ● | | | | | | | | |
| Develop strategy for inclusive programming. | ● | | | | | | | | |
| Target: Sustainability inclusion and justice initiative launched | | ● | | | | | | | |

Healthy Planet,



As part of the Yale School of Public Health's centennial celebration in 2015, a joint conference with the Yale School of Forestry & Environmental Studies explored the importance of access to nature for physical and mental health.

From campus buildings and grounds to transportation, food, and energy, our activities to enhance the environment also offer opportunities to improve the health and well-being of individuals on campus, in the community, and throughout the world. Studies show that experiences with nature can improve the mental and physical well-being of individuals, and that green spaces can build community. By looking for co-benefits in our sustainability actions—strategies that provide both environmental and social or health benefits—we can ensure we are being responsible citizens of our campus and our broader community.

As part of their Community Health course, in 2016 Yale School of Nursing students partnered with the Yale Landscape Lab for a series of workshops that focused on using gardening and cooking to connect with patients and promote healthy lifestyles. For more information, visit nursing.yale.edu.

Yale Hospitality offers the Yale Dining Fast Track App to show diners how busy each venue is and allow them to see the ingredient lists and nutritional content of the day's menus.

Yale Hospitality received the 2016 Silver Plate Award for college and university foodservice from the International Foodservice Manufacturer's Association. For more information, visit news.yale.edu.



Yale School of Forestry & Environmental Studies researchers were awarded a \$10 million EPA grant to study the relationships between air quality, energy policy, climate change, and public health.

In 2015 Yale announced its tobacco-free public health campaign, which reflects the university's commitment to provide a healthier environment for all members of the campus community. For more information, visit tobaccofree.yale.edu.

Healthy People

3 Health & Well-Being

ENHANCE HEALTH, WELL-BEING, AND ECOSYSTEM VITALITY

OBJECTIVE 3.1

ENCOURAGE DECISION-MAKING AND BEHAVIORS THAT LEAD TO A HEALTHY, VIBRANT CAMPUS AND SURROUNDING COMMUNITY

Goal: Sustainability, Health, and Well-Being

By 2020, align university efforts to increase awareness of health benefits of sustainability initiatives and improve health outcomes.

OBJECTIVE 3.2

PROMOTE RESILIENT FOOD SYSTEMS THROUGH ON-CAMPUS FOOD SERVICE AND COMMUNITY-WIDE EFFORTS

Goal: Food Literacy and Resilience

By 2020, establish a fresh sustainable food action plan that sets new standards for measuring the ecological and social impacts of on-campus food preparation and consumption.

Goal: Sustainable Catering

By 2020, establish campus-wide sustainable catering standards.

HEALTH AND WELL-BEING: STEPS AND TARGETS

| SUSTAINABILITY, HEALTH, AND WELL-BEING 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| Create a working group to set campus sustainability priorities related to health and well-being. | ● | | | | | | | | |
| Establish a process for conducting health impact assessments for operational decision-making. | ● | ● | | | | | | | |
| Launch an educational campaign that highlights the connections between health, well-being, and sustainability. | | ● | ● | | | | | | |
| Target: Priorities established | ● | | | | | | | | |
| Target: Health impact assessment process defined and implemented | | ● | | | | | | | |
| Target: Educational initiative launched | | | ● | | | | | | |
| FOOD LITERACY AND RESILIENCE 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Launch Yale food sustainability literacy initiatives to inform healthy food choices and access on campus. | ● | | | | | | | | |
| Create initiatives to set targets for food waste reduction throughout the food system. | ● | ● | ● | ● | | | | | |
| Define and implement programs to align research and development with sustainable food production. | ● | ● | ● | ● | | | | | |
| Target: Yale sustainable food action plan implemented | | | | ● | | | | | |
| SUSTAINABLE CATERING 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Create an online repository for sustainable catering recommendations. | ● | | | | | | | | |
| Establish healthy meeting and workplace event guide. | ● | | | | | | | | |
| Develop policies for outside vendors. | ● | ● | ● | | | | | | |
| Target: Sustainable catering standards required for all vendors | | | | ● | | | | | |

Taking Action



in

a

Changing Climate

In 2005 Yale committed to a greenhouse gas **emissions reduction** goal of 43% below 2005 levels by 2020. In an effort to achieve this goal, the University has committed to reducing energy use within buildings through conservation and efficiency, adhering to sustainable construction and renovation standards for buildings, increasing efficiency in Yale's on-campus power plants, and promoting behavioral shifts by building occupants. In 2015 a 350,000-square-foot photovoltaic **solar array** was installed on West Campus, providing one megawatt of installed electric capacity. Coupled with operational excellence, research across the University addresses the need for viable **renewable energy** and carbon management solutions. The impacts of climate change are explored across **multiple disciplines**. For more on Yale's energy management, visit facilities.yale.edu.

The solar energy production from the West Campus array will offset the equivalent of more than 16,000 metric tons of carbon dioxide over the life of the system, which is roughly equal to taking more than 3,400 passenger cars off the road for a year.

In 2014 Yale committed to third party calculation, verification, and reporting of greenhouse gas emissions. Adopting these standards is central to making useful comparisons among peers and to learning from each other's examples.

Yale invested in the Record Hill Wind Project in 2011. The US Department of Energy estimates that this installation avoids 70,000 tons of carbon dioxide emissions annually. For more information, visit recordhillwind.com.

The course, *Cities in Hot Water: Urban Climate Mitigation and Adaptation*, examines the impact of climate change on urban infrastructure and paths for resilience with a focus on New Haven.

4 Climate Action

TAKE URGENT ACTION TO MITIGATE CLIMATE CHANGE AND PROACTIVELY ADAPT TO ITS IMPACTS

OBJECTIVE 4.1

ACHIEVE CARBON NEUTRALITY FOR YALE UNIVERSITY BY OR BEFORE 2050

Goal: GHG Emissions Reduction Commitment

By 2020, meet or exceed the 2005 commitment to reduce greenhouse gas emissions by 43% below 2005 levels.

Goal: Carbon Neutrality Strategy

By 2019, develop a strategy to achieve carbon neutrality by or before 2050.

Goal: Scope 3 Emissions Reduction Program

By 2020, develop a program and related technology to account for, reduce, and offset emissions from university events and travel to position Yale to set a Scope 3 emissions reduction commitment.

OBJECTIVE 4.2

DEVELOP, TEST, AND SHARE CLIMATE CHANGE MITIGATION AND ADAPTATION STRATEGIES IN SUPPORT OF OVERALL REGIONAL RESILIENCE

Goal: Campus Resilience Plan

By 2019, create a campus resilience plan that aligns with local and regional adaptation approaches for resiliency.

OBJECTIVE 4.3

INCORPORATE THE RISKS AND OPPORTUNITIES ASSOCIATED WITH CLIMATE CHANGE AND POSSIBLE GOVERNMENTAL RESPONSES TO CLIMATE CHANGE IN THE EVALUATION OF INVESTMENT OPPORTUNITIES

Goal: Yale Investments and Climate Change

Encourage Yale's external investment managers to consider the risks and opportunities associated with climate change in their investment processes with respect to Yale's portfolio.

CLIMATE ACTION: STEPS AND TARGETS

| GHG EMISSIONS REDUCTION COMMITMENT 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|------|----|----|----|----|----|----|----|----|
| Expand energy conservation and emissions reductions through applied research. | ● | ● | ● | ● | | | | | |
| Identify, fund, and implement energy conservation and generation projects with positive returns and significant GHG emissions reductions. | ● | ● | ● | | | | | | |
| Target: Achieve 43% reduction below 2005 levels | | | | ● | | | | | |
| CARBON NEUTRALITY STRATEGY 2019 | | | | | | | | | |
| Set five-year incremental targets for GHG emissions reductions. | ● | ● | ● | | | | | | |
| Commit to a significant and actionable university policy to guide use of carbon offsets. | ● | ● | ● | | | | | | |
| Define and commit to an iterative on-campus investment approach to achieve 2050 carbon neutrality. | ● | ● | ● | | | | | | |
| Target: Reduction targets for 2025–2050 established | | | ● | | | | | | |
| Target: University offset policy adopted | | | ● | | | | | | |
| Target: Campus investment approach defined/adopted | | | ● | | | | | | |
| SCOPE 3 EMISSIONS REDUCTION PROGRAM 2020 | | | | | | | | | |
| Research technology options for measuring and reducing Scope 3 emissions. | ● | ● | | | | | | | |
| Establish guidelines for staff, faculty, and students to follow when traveling for Yale-related purposes. | ● | | | | | | | | |
| Create an individualized counseling program for advising Yale affiliates on sustainable travel. | | | ● | | | | | | |
| Create a Scope 3 emissions reduction strategy. | | | ● | ● | | | | | |
| Target: Scope 3 emissions target and reduction strategy established | | | | ● | | | | | |
| CAMPUS RESILIENCE PLAN 2019 | | | | | | | | | |
| Launch a working group of campus stakeholders and external partners to inform climate change adaptation standards and recommendations. | ● | ● | | | | | | | |
| Identify and incorporate climate preparedness protocols into campus planning standards. | | ● | ● | | | | | | |
| Target: Campus resilience plan created | | | ● | | | | | | |
| YALE INVESTMENTS AND CLIMATE CHANGE | | | | | | | | | |
| Communicate Yale's principles to prospective external investment managers and take action as appropriate. | ● | | | | | | | | |
| Target: Ongoing assessment of risks presented by climate change on investment management | ● | ● | ● | ● | ● | ● | ● | ● | ● |

Land,



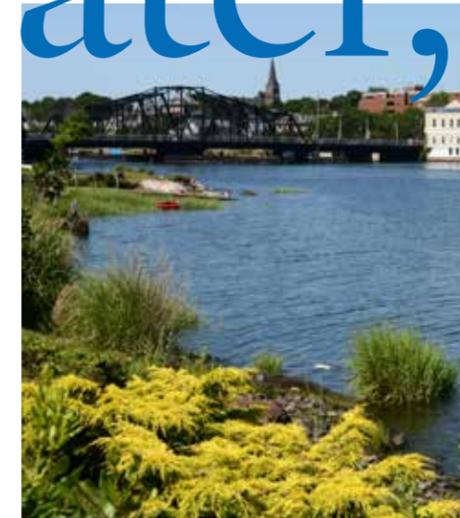
The Yale Landscape Lab at West Campus provides a place for members of the Yale community to research and demonstrate sustainability solutions connecting the natural and built environment. To learn more, visit westcampus.yale.edu.

The 5.5-acre Yale Experimental Watershed hosts fieldwork and research projects including tree identification and mapping, soil sampling and testing, and site hydrology and groundwater monitoring. To learn more, visit hixon.yale.edu.

Life



Water,



Ninety-eight of the trees planted by the Urban Resource Initiative are on campus, twenty of which recognize Yale employees for long-term service. For more information, visit your.yale.edu.

Yale Grounds Maintenance has installed seven urban meadows around campus. These require less mowing and watering and lead to increased biodiversity and reduced stormwater runoff.

On its two campus farms, in the classroom, and around the world, the Yale Sustainable Food Program serves as a hub for diverse activities related to food, agriculture, health, and the environment. To learn more, visit sustainablefood.yale.edu.

The Yale campus and its surroundings contain a wealth of unique urban green spaces that offer opportunities for relaxation and recreation as well as education. Inspired by student research and recommendations, Yale has installed multiple urban meadows and rain gardens throughout campus. The Urban Resources Initiative, a not-for-profit-university partnership, has planted more than 6,800 trees in the City of New Haven with the help of Yale students, local community members, high school students, and adults with histories of incarceration. Hundreds of students, faculty, and staff participate annually in citizen science events to survey and record biodiversity on campus. For more on URI, visit environment.yale.edu/uri. To learn about our Citizen Science Program, visit yubio.yale.edu.

5 Stewardship

PLAN AND PRESERVE RESILIENT AND SUSTAINABLE INFRASTRUCTURE AND LANDSCAPES

OBJECTIVE 5.1

DEVELOP TRANSFORMATIVE APPROACHES TO URBAN GROWTH AND CAMPUS PLANNING THAT ADDRESS FINANCIAL, ENVIRONMENTAL, AND SOCIAL IMPERATIVES

Goal: Campus Land Use Planning Guidelines

By 2019, update campus land use planning guidelines to ensure enhanced human health, improved biodiversity, and enhanced environmental quality.

Goal: Efficient Campus Growth

By 2020, develop and implement planning strategies to efficiently accommodate increased campus population and programmatic expansion.

OBJECTIVE 5.2

DEVELOP INNOVATIVE APPROACHES TO LAND AND WATER MANAGEMENT THAT ENHANCE HUMAN HEALTH, BIODIVERSITY, AND ENVIRONMENTAL VITALITY

Goal: Landscape Management and Use

By 2021, define standards for innovative landscape management to enhance care and use of Yale land inside and outside of New Haven.

Goal: Stormwater and Water Management

By 2020, implement recommendations as proposed in 2016 supplements to campus Stormwater and Water Management Plans in explicit alignment with municipal, regional, and state priorities.

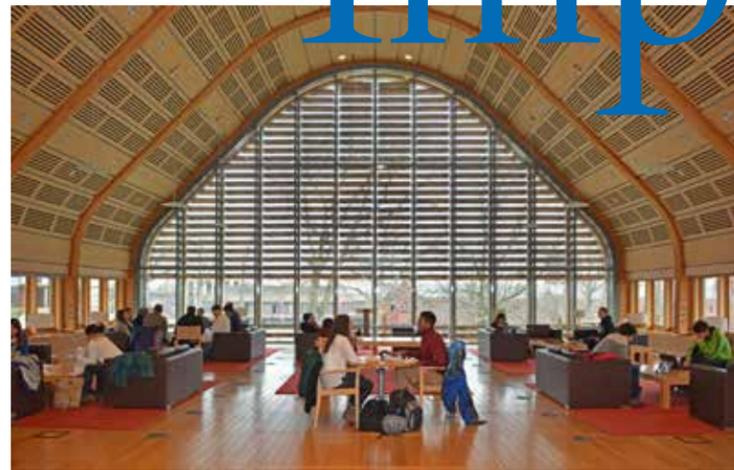
Goal: Biodiversity Plan

By 2023, establish campus best practices, standards, benchmarks, and biodiversity goals and strategies to meet and measure performance to create a campus biodiversity plan.

STEWARDSHIP: STEPS AND TARGETS

| CAMPUS LAND USE PLANNING GUIDELINES 2019 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|------|----|----|----|----|----|----|----|----|
| Review and update campus planning guidelines. | ● | ● | | | | | | | |
| Target: Planning guidelines updated | | | ● | | | | | | |
| EFFICIENT CAMPUS GROWTH 2020 | | | | | | | | | |
| Develop a campus planning approach to build less and use space more intensively. | ● | ● | | | | | | | |
| Create a policy that prioritizes reuse and high-density use over new construction. | | ● | ● | | | | | | |
| Target: Planning standards and policy developed and implemented | | | | ● | | | | | |
| LANDSCAPE MANAGEMENT AND USE 2021 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Research and define standards for sustainable land development and management on Yale's campuses. | ● | ● | | | | | | | |
| Create a tree management plan for campus tree care and canopy growth. | ● | ● | ● | | | | | | |
| Assess current use of campus green space and set targets for expanded use and health co-benefits. | | | | ● | ● | | | | |
| Target: Landscape management standards complete | | | | ● | | | | | |
| Target: Tree management plan complete | | | ● | | | | | | |
| Target: green space use strategy launched | | | | | ● | | | | |
| STORMWATER AND WATER MANAGEMENT 2020 | | | | | | | | | |
| Update campus Stormwater and Water Management Plans in alignment with local priorities. | ● | | | | | | | | |
| Pilot new green infrastructure technologies. | ● | ● | | | | | | | |
| Implement reclaimed water project to supply water to Sterling Power Plant. | ● | ● | ● | | | | | | |
| Target: Management plans updated | ● | | | | | | | | |
| Target: Green Infrastructure pilot projects complete | | ● | ● | ● | | | | | |
| Target: Utility-scale reclaimed water project under way | | | ● | | | | | | |
| BIODIVERSITY PLAN 2023 | | | | | | | | | |
| Create programming to engage on- and off-campus community members. | | | ● | ● | ● | ● | ● | | |
| Determine benchmarks and best practices for enhanced campus biodiversity. | ● | ● | ● | ● | ● | ● | ● | | |
| Target: Campus biodiversity plan created and launched | | | | | | | ● | | |

Buildings that Improve the Quality of Life



First-year students in the Yale School of Architecture design and build a structure as part of their graduate education. Mandatory for all members of the class, this program results in the construction of an affordable and efficient single-family home in a low-income neighborhood.

In 2009 Yale committed to Leadership in Energy and Environmental Design (LEED) standards for all campus construction projects. As of 2016, Yale completed three LEED Platinum, eighteen LEED Gold, and two LEED Silver certified projects.

In 2014 Yale School of Forestry & Environmental Studies students partnered with operational staff members to design and install a rain garden.

The Yale Divinity School is celebrating the connection between faith and sustainability by committing to create a “regenerative village” for its students living on campus. The buildings and landscape will enhance the surrounding environment while supporting community.

According to the US Environmental Protection Agency, the average American spends nearly 90% of his or her lifetime indoors. Yale is committed to high standards for all new construction and renovations to ensure healthy living and working environments for building occupants. In addition to energy and water efficiency, this includes access to natural light and use of nontoxic materials. It also involves encouraging broad behavioral change among students, staff, faculty, and visitors, making a positive impact on the environment. A series of learning modules for building occupants are aimed at increasing awareness and empowering sustainable behavior. To see building occupancy modules, visit sustainability.yale.edu.

6 Built Environment

DESIGN, BUILD, AND MAINTAIN RESILIENT AND SUSTAINABLE BUILDINGS

OBJECTIVE 6.1

DEVELOP TRANSFORMATIVE APPROACHES TO PROJECT DESIGN, CONSTRUCTION, AND MAINTENANCE THAT ADDRESS FINANCIAL, ENVIRONMENTAL, AND SOCIAL IMPERATIVES

Goal: High-Performance Design Standards

By 2019, evaluate existing frameworks for high-performance building design and update Yale design requirements to achieve emissions reductions, optimal performance and use, and positive health and ecosystem outcomes.

Goal: Campus Development Strategy for Carbon Neutrality

By 2020, commit to campus development strategy that increases energy conservation and renewable energy generation in support of the carbon neutrality commitment.

OBJECTIVE 6.2

DEVELOP EFFECTIVE APPROACHES TO MAINTENANCE, OPERATION, AND OCCUPANCY OF BUILDINGS THAT BOTH ENSURE OPTIMAL PERFORMANCE AND ARE RESPONSIVE TO ENVIRONMENTAL, SOCIAL, AND FINANCIAL IMPERATIVES

Goal: Maintenance, Operations, and Occupancy Standards

By 2019, define and commit to updated high-performance standards and protocols for planned maintenance, operation, and building occupancy that comprehensively integrate sustainability.

Goal: Enhanced Space Use Policy

By 2019, develop and adopt a university policy for efficient use of campus space that improves utilization of university buildings and facilities by identifying and reducing redundancies and excess capacity.

BUILT ENVIRONMENT: STEPS AND TARGETS

| HIGH-PERFORMANCE DESIGN STANDARDS 2019 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| Evaluate alternate rating systems and approaches against current standards. | ● | ● | ● | | | | | | |
| Establish systems to transition new buildings and renovations from design to occupancy to ensure high performance. | ● | ● | ● | | | | | | |
| Target: Design standards updated and adopted | | | ● | | | | | | |
| CAMPUS DEVELOPMENT STRATEGY FOR CARBON NEUTRALITY 2020 | | | | | | | | | |
| Develop projects for energy conservation, generation, and distribution that support a resilient, healthy campus. | ● | ● | | | | | | | |
| Create and implement a plan to integrate strategies in support of carbon neutrality into all campus construction projects. | ● | ● | ● | | | | | | |
| Target: Implement campus development strategy that supports carbon neutrality | | | | ● | | | | | |
| MAINTENANCE, OPERATIONS, AND OCCUPANCY STANDARDS 2019 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Enhance standards and protocols for maintaining and operating all Yale-owned and/or Yale-operated buildings. | ● | ● | ● | | | | | | |
| Implement new protocols and staffing models to support construction commissioning and project turnover for peak systems performance. | ● | ● | | | | | | | |
| Conduct health impact assessment to ensure optimal health and well-being outcomes through operations, maintenance, and occupancy. | ● | ● | ● | | | | | | |
| Target: High-performance standards adopted | | | ● | | | | | | |
| ENHANCED SPACE USE POLICY 2019 | | | | | | | | | |
| Establish a multi-department task force to analyze and recommend more efficient use of space on campus. | ● | ● | ● | | | | | | |
| Educate building occupants on how to maximize building assets and space use. | | | ● | ● | | | | | |
| Target: University policy for enhanced space use adopted | | | | ● | | | | | |

Yale

Over 1,100 university employees have purchased homes in New Haven with the help of the Yale Homebuyer Program. For more information, visit your.yale.edu.

In 2015 the Yale Transportation Survey showed that more than one-third of Yale employees live in the **City of New Haven**. This is the highest number since the survey began in 2007. The survey also showed that employees are increasingly choosing to walk, bike, or ride the Yale Shuttle to work. To further these trends, Yale has partnered with the city and other local employers to encourage use of the expanding **infrastructure and programs for walking, biking, and using transit**. A focus on **health and physical activity** has encouraged more people **to be active on campus**, reducing vehicle usage, improving air quality and reducing congestion on the roads. The Yale Community Carbon Fund allows those who commute to or travel for Yale to support local energy efficiency projects and offset their emissions. For more information on Yale Community Carbon Fund visit sustainability.yale.edu.

Bulldog Mobile is an app that gives students, staff, and faculty on campus an effective way to communicate with Yale Police via a mobile device. It features peer-to-peer communication for activities such as walking together. For more information, visit your.yale.edu.

The University partners with the City of New Haven and other local and state organizations on goNewHaven, an alternative transportation program that encourages healthier, cleaner, and more affordable travel. For more information, visit gonhgo.org.

The Yale Climate Change and Health Initiative uses Yale's multidisciplinary expertise to train future leaders in areas impacting human health and climate change, including transportation. For more information, visit publichealth.yale.edu.

Yale offers multiple options for shared-use mobility, including membership-based car and bike sharing and departmental cars and bikes. For more information, visit to.yale.edu.

in

Motion



7 Mobility

PROMOTE AND SUPPORT HUMAN AND ECOSYSTEM HEALTH THROUGH SUSTAINABLE TRANSPORTATION

OBJECTIVE 7.1

ENHANCE AND SUPPORT SYSTEMS FOR ALTERNATIVE AND ACTIVE TRANSPORTATION

Goal: Sustainable Transportation Framework

By 2019, complete a Sustainable Transportation Framework and related analyses for enhancing sustainable transportation infrastructure on and across Yale campuses.

Goal: Local and Regional Transportation Partnership

By 2019, enhance transportation options through local and regional partnerships.

OBJECTIVE 7.2

ADVANCE TRANSPORTATION CHOICES THAT IMPROVE HUMAN HEALTH AND ENVIRONMENTAL VITALITY

Goal: Sustainable Commuting

By 2025, increase the proportion of Yale community members commuting to campus using sustainable transportation modes by 10% above 2015 levels.

MOBILITY: STEPS AND TARGETS

| | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| SUSTAINABLE TRANSPORTATION FRAMEWORK 2019 | | | | | | | | | |
| Complete Sustainable Transportation Framework. | ● | | | | | | | | |
| Conduct health impact assessment of Sustainable Transportation Framework recommendations. | | ● | ● | | | | | | |
| Target: Framework complete | ● | | | | | | | | |
| Target: Health impact assessment complete | | | ● | | | | | | |
| LOCAL AND REGIONAL TRANSPORTATION PARTNERSHIP 2019 | | | | | | | | | |
| Assemble public and private partners in the New Haven area to share best practices and develop collaborative solutions. | ● | ● | ● | | | | | | |
| Complete financial and environmental analyses of options for expanding shuttle and transit ridership. | ● | ● | ● | | | | | | |
| Target: Collaborative partnership established | ● | | | | | | | | |
| Target: Solutions recommended | | | ● | | | | | | |
| SUSTAINABLE COMMUTING 2025 | | | | | | | | | |
| Develop and implement a suite of programs that facilitate the use of active and alternative transportation methods. | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Develop a Yale Bike/Walk Strategy to align incentives, infrastructure, and education on health and environmental benefits. | ● | ● | ● | ● | | | | | |
| Target: Bike/Walk Strategy complete | | | | ● | | | | | |

Using and Reusing Materials to Inspire

In an effort to reduce waste during student move out, Yale launched the first phase of a three-year project to provide permanent furniture in all dormitory common rooms in freshman housing.

University operations and academics require a vast array of materials—from art supplies to **furniture, from medical equipment to sports uniforms, from construction materials to food. Yale helps drive sustainability within this complex materials management system by leveraging its relationships with suppliers and**

using data to **inspire, incentivize, and empower our community members. For example, using data collection and informational campaigns, the University was able to lower paper purchasing by more than 50% between 2005 and 2015. Going forward, the University will continue to engage and empower the Yale community with information and ideas while drawing from resources such as the **Yale Center for Business and the Environment** and the **Yale Center for Industrial Ecology** to inform supply chain and disposal patterns. For more on sustainable purchasing and disposal at Yale, see sustainability.yale.edu.**



In 2015 the Center for Business and the Environment awarded grants to two Yale School of Management faculty members to study sustainable supply-chain management. To learn more, visit cbey.yale.edu.

*Industrial ecology in action: in 2016, two Yale alumni received funding from the Yale Entrepreneurial Institute towards their startup, **Renewal Mill**, which takes what is typically considered as waste from food processes and turns it into a usable product. To learn more, visit yei.yale.edu.*

8 Materials

ENSURE SUSTAINABLE CONSUMPTION AND DISPOSAL PATTERNS

OBJECTIVE 8.1

ADVANCE PURCHASING STANDARDS THAT PROMOTE SUSTAINABILITY AND RESILIENCE

Goal: Vendor Management

By 2019, define, refine, and systematize progressive language for requests for proposals and vendor contracts.

Goal: Sustainable Packaging

By 2020, establish and promote sustainable packaging standards.

OBJECTIVE 8.2

PROMOTE MATERIAL FLOW SYSTEMS THAT EMPLOY USE AND DISPOSAL PATTERNS TO INFORM PURCHASING DECISIONS

Goal: "Pay as You Throw"

By January 2022, create, pilot, and assess a "pay as you throw" system.

Goal: Targeted Waste Reduction

By 2020, identify the most impactful commodity groups that contribute to Yale's waste stream, through material flow analyses.

OBJECTIVE 8.3

CULTIVATE SUSTAINABLE PURCHASING AND DISPOSAL DECISIONS

Goal: Materials Outreach and Engagement

By 2020, create and launch an engagement strategy to empower Yale students, staff, and faculty to make responsible materials management choices, including communications about purchasing volume for key commodities; reuse; and diversion of materials from the waste stream.

Goal: Reuse

By 2021, create a suite of coordinated solutions for exploring inflow and outflow of high-volume materials, by identifying opportunities for reuse within the Yale community, New Haven community, and the region.

MATERIALS: STEPS AND TARGETS

| VENDOR MANAGEMENT 2019 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| Establish measurable sustainability criteria for the major commodity groups purchased with university funds. | ● | | | | | | | | |
| Apply sustainability criteria to 100% of formal requests for proposals and requests for information. | | ● | ● | | | | | | |
| Target: Defined standards fully implemented | | | ● | | | | | | |
| SUSTAINABLE PACKAGING 2020 | | | | | | | | | |
| Set baseline and target for packaging reduction and sustainable packaging. | ● | | | | | | | | |
| Establish sustainable packaging criteria for vendors. | ● | ● | | | | | | | |
| Integrate packaging language into appropriate vendor contracts. | | ● | ● | ● | | | | | |
| Target: Standards established and promoted | | | | ● | | | | | |
| Target: Reduction target for packaging identified | | | | ● | | | | | |

| "PAY AS YOU THROW" 2022 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| Form a task force to examine the feasibility of implementing a disposal fee and determine viable scale. | | ● | ● | ● | | | | | |
| Develop a strategy and set baseline and target for pilot initiative. | | ● | ● | | | | | | |
| Implement and assess "pay as you throw" pilot. | | | ● | ● | | | | | |
| Target: Baseline data gathered | | | ● | | | | | | |
| Target: "Pay as you throw" system piloted and assessed | | | | | ● | ● | | | |
| TARGETED WASTE REDUCTION 2020 | | | | | | | | | |
| Set comprehensive parameters for what it means to make an impact, including identification of appropriate metrics. | ● | | | | | | | | |
| Complete a material flow analysis for a set of commodity groups, and identify a target reduction for each. | | ● | ● | ● | | | | | |
| Target: Standards for sustainability impacts and metrics defined | | ● | | | | | | | |
| Target: Baselines and reduction targets established | | ● | | | | | | | |
| Target: Priority material flow analyses completed | | | | ● | | | | | |

| MATERIALS OUTREACH AND ENGAGEMENT 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|------|----|----|----|----|----|----|----|----|
| Using outcomes from the Sustainable Packaging and Targeted Waste Reduction goals, identify opportunities to streamline systems and enhance communications. | ● | ● | ● | | | | | | |
| Launch an engagement strategy that includes tactics for communicating about key metrics and fostering financially and environmentally beneficial practices. | | ● | ● | ● | | | | | |
| Target: Engagement strategy created | | | | ● | | | | | |
| REUSE 2021 | | | | | | | | | |
| Identify priority areas and commodities for reuse. | ● | | | | | | | | |
| Set baselines and strategies for priority commodities and areas. | ● | ● | ● | | | | | | |
| Identify channels and create processes for reuse within the Yale community, New Haven community, and the region. | ● | ● | ● | ● | | | | | |
| Target: Reuse strategies drafted | | | | | ● | | | | |
| Target: Baselines and targets for priority commodities set | | | | | ● | | | | |

Shaping the Future



with

Technology

Take a moment to think about the technology you were using nine years ago—**your phone**, your computer, your wearable device—and consider the technological advances that will occur between now and 2025. Yale has made remarkable progress reducing server energy use, working with leading sustainable vendors, and streamlining on-campus IT systems. Moving forward, the University will continue to provide the Yale community with new and more advanced **computing solutions** such as cloud-based virtual desktops, while supporting telework solutions and meeting the needs of employees and students with disabilities. We will also leverage technology to build a more **accessible, inclusive, and connected Yale**, with emphasis on solutions for using space on campus, building the sharing economy, and enhancing mobility. For more on sustainable computing at Yale, visit its.yale.edu.

Through the use of Geographic Information Systems, or GIS, researchers at the Yale School of Forestry & Environmental Studies have helped map 6,000 years of urban settlements, from 3,700 BC to 2,000 AD. This work offers a new lens through which to explore the history of urbanization.

Following the 2015 earthquake in Nepal the Nepali Association of Yale Affiliates translated Facebook's Safety App, leading to over a million hits that increased awareness and safety following the event.

Offering resources including 3D printers, electronic work stations, a machine shop, a wood shop, and a wet lab, the Yale Center for Engineering, Innovation, and Design (CEID) is an open working space for all students, staff, and faculty interested in collaborative design. To learn more, visit ceid.yale.edu.

Researchers in the School of Engineering and Applied Science are working to build a solar power system at a school in Port-de-Paix, Haiti, that will provide clean energy to the school and basic energy services to the surrounding community. To learn more, visit seas.yale.edu.

9 Technology

EXPLORE INNOVATIVE TECHNOLOGICAL PLATFORMS TO ADDRESS SUSTAINABILITY CHALLENGES

OBJECTIVE 9.1

DEVELOP AND IMPLEMENT MULTIDISCIPLINARY TECHNOLOGICAL SOLUTIONS THAT FOSTER SUSTAINABILITY AND CONNECTIVITY THROUGH LOCAL, REGIONAL, AND GLOBAL NETWORKS

Goal: Sustainability Technology Network

By 2018, establish an initiative to promote technology-based sharing economy concepts.

OBJECTIVE 9.2

LEAD THE TECHNOLOGY INDUSTRY BY CREATING REPLICABLE SUSTAINABILITY STANDARDS RELATED TO ENERGY, MATERIALS, HUMAN WELL-BEING, AND TRANSPORTATION

Goal: Sustainable IT Standards

By 2019, define new sustainability standards for institutional information technology.

Goal: Telework

By 2020, increase teleworking at Yale by 25% to reduce travel and transportation emissions.

TECHNOLOGY: STEPS AND TARGETS

| SUSTAINABILITY TECHNOLOGY NETWORK 2018 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--|------|----|----|----|----|----|----|----|----|
| Identify opportunities for technology partnerships with specific local, regional, and/or global institutions. | ● | ● | | | | | | | |
| Pilot shared economy platform concept. | ● | ● | | | | | | | |
| Target: Shared economy platform launched | | ● | | | | | | | |
| SUSTAINABLE IT STANDARDS 2019 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Create a working group of Yale faculty, staff, students, and alumni to explore best practices and create new guidelines. | ● | | | | | | | | |
| Pilot draft standards. | ● | ● | ● | | | | | | |
| Create a Yale ITS Sustainability Action Plan based on these standards. | | ● | ● | | | | | | |
| Target: Standards implemented throughout Yale | | | ● | | | | | | |
| TELEWORK 2020 | 2017 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Establish baselines for telecommuting and teleconferencing. | ● | | | | | | | | |
| Complete pilot programs for telecommuting. | ● | | | | | | | | |
| Catalogue, enhance, and assemble resources and benefits for telecommuting and teleconferencing. | ● | ● | ● | ● | | | | | |
| Target: 25% increase in telecommuting | | | | ● | | | | | |
| Target: 25% increase in teleconferencing | | | | ● | | | | | |

MEASUREMENT, REPORTING, AND DYNAMIC PLANNING

In order to ensure that the plan goals are achieved, the University will issue annual reports to showcase successes, lessons learned, and new opportunities. Progress for each ambition will be evaluated in terms of environmental, social, and financial indicators as well as in the context of global and local sustainability priorities and targets.

There are several measurements that have been included in previous sustainability plans but are not directly referenced in this document. This is not an indication that the University will no longer be collecting these metrics, but rather a signal that Yale's measurement processes are evolving. In some cases, the same data that have been collected in previous years will be used as indicators for more ambitious goals. For example, purchasing and disposal data will be used to assess our progress on the Materials Ambition. Over the course of the first year, the Office of Sustainability team will transition these data into an accessible platform so that targets and tracking are readily evident.

In other cases, this plan is charting a course to move beyond imperfect proxy indicators to pursue more analytically rigorous quantification. This is the case with our evaluation of sustainable food on campus. While Yale's previous commitments to sustainable food sourcing were helpful in setting institutional priorities, collection, and analysis of the

information proved complicated and subjective. With the new commitments under Leadership, Health and Well-Being, and Materials, this plan will establish fresh standards for measuring the impact of Yale food procurement and preparation.

Finally, while quantifiable indicators are invaluable in assessing progress, stories of success, lessons learned, and culture change are not always measurable in tons or dollars. These narratives will be shared through online materials and annual reports as a way to celebrate, learn, and inspire.

APPENDIX 1: PEOPLE AND PROCESS

It is important to note that while the Yale Office of Sustainability led the process of development, it does not own the plan. The Office of Sustainability will drive and facilitate many of the initiatives here, and will offer verification and accountability throughout the years of this plan, but this is a set of commitments that will rely on the active participation of all members of the Yale community. Sustainability at Yale is not the work of one office or administrative unit; it is a collective and collaborative effort that benefits from champions throughout the institution—technical staff, faculty members, undergraduate and graduate students, alumni, administrators, and enthusiasts all play active roles in enhancing Yale's leadership in sustainability.

The process for this plan began with a review of previous plans and included extensive stakeholder engagement sessions before, during, and after the drafting of the plan. The Office of Sustainability developed a comprehensive process to engage everyone from top leadership to students to alumni to employees. Through extensive consultation with stakeholder groups, the Office of Sustainability determined that the University should set ambitions that would be comprehensive and set goals specific to Yale's current priorities. The nine ambitions define areas where the University can succeed and excel, and that connect Yale with the larger context for sustainable development. Transformative solutions will require active engagement of all members of the Yale community and Yale's engagement as a global institution.

MAJOR MILESTONES OF THE PLANNING PROCESS

08.14—President Salovey asks for a review of the Yale sustainability strategic plan to determine if the university-wide goals are ambitious enough

09.14—Launch of a course in which students analyze components of the 2013–2016 plan

02.15—World Business Council for Sustainable Development reviews the 2013–2016 plan

03.15—Report on the ambitions of the 2013–2016 plan and recommendations for the next plan is delivered to President Salovey

05.15—Office of Sustainability creates a set of materials including a draft framework and stakeholder engagement process

06.15—Office of Sustainability convenes a working group of faculty and staff to evaluate the framework, inform the stakeholder engagement process, and advise on goal-setting

07.15—With members of the working group, the Office of Sustainability launches a series of interviews with top university leadership

09.15—The working group convenes a Steering Committee with broad academic and operational representation

10.15—With members of the working group, the Office of Sustainability launches a series of six workshops to discuss priorities and ambitions: Teaching & Learning, Natural Environment, Energy & Greenhouse Gas Emissions, Materials Management, Health & Well-Being, and Research

02.16—Steering Committee reviews first working draft of the Sustainability Plan 2025

04.16—Office of Sustainability launches a three-month set of events for stakeholder feedback on the new plan

05.16—Steering Committee reviews second draft of the plan

05.16—Office of Sustainability presents key concepts and top priorities to the University Cabinet

07.16—The draft plan is reviewed by a set of internal and external experts

08.16—The plan is finalized

10.16—Official announcement of the plan as a part of *Celebrate Sustainability*

WORKING GROUP

The initial framework of this plan benefited from the direct guidance of a working group of nine faculty and staff members:

Bradford Gentry, Associate Dean for Professional Practice; Professor in the Practice; Co-Director of the Center for Business & the Environment at Yale; Director of the Research Program on Private Investment and the Environment
Jennifer Herdt, Gilbert L. Stark Professor of Divinity; Senior Associate Dean of Academic Affairs
Christopher Incarvito, Director of West Campus Research Operations and Technology
John Mayes, Associate Vice President and Chief Procurement Officer
Colleen Murphy-Dunning, Program Director, Hixon Center for Urban Ecology, Urban Resources Initiative
Julie Paquette, Director of Energy Management, Yale Facilities Systems Engineering
Karen Seto, Associate Dean of Research, School of Forestry & Environmental Studies; Professor of Geography & Urbanization; Director of Doctoral Studies

David Skelly, Frank R. Oastler Professor of Ecology, School of Forestry & Environmental Studies; Director of the Peabody Museum of Natural History

James Slattery, Associate Provost for Science

STEERING COMMITTEE

The process of developing the ambitions, objectives, and goals of this plan was guided by a thirty-five-person Steering Committee that included representation from all of the major administrative units of the university as well as faculty and student representatives. This high-level committee was complemented by delegates who worked closely with the Office of Sustainability to define the strategies and tactics for achieving the goals.

STEERING COMMITTEE MEMBERS

John Mayes (co-chair), Finance
James Slattery (co-chair), Office of the Provost
M. Virginia Chapman (co-chair), Office of Sustainability
John Bollier, Office of Facilities
Mark Bomford, Sustainable Food Program
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Anna Kashkanova, Physics (page 35)

APPENDIX 2: GLOSSARY OF TERMS

Carbon Neutrality Achieving net-zero GHG emissions (Scope 1 and Scope 2 as defined by the GHG Protocol standard) from the university power plants, buildings, and vehicle fleet by reducing Yale's emissions as much as practicable, and to the extent that emissions have not been reduced to zero by 2050, to acquire or develop sufficient high-quality offsets (verifiable and additional through an internationally recognized standard) to compensate these remaining emissions or otherwise compensate for such emissions.

Greenhouse Gas Emissions Scopes 1, 2, and 3 Scope 1: direct emissions from sources owned or controlled by Yale, and including emissions from Yale's fleet of vehicles and its power plants; Scope 2: indirect emissions from purchased electricity; Scope 3: indirect emissions from all other sources that occur as a result of Yale operations but occur from sources not owned or controlled by the University, such as employee commuting, air travel, and paper consumption.

Guidelines A non-mandatory set of instructions, recommendations, or other guidance language on how to proceed with a specific set of actions in order to achieve a desired result.

Health Impact Assessment As defined by the Centers for Disease Control and Prevention (CDC), a health impact assessment (HIA) is a process that helps evaluate the potential health effects of a plan, project, or policy before it is implemented. An HIA can provide

recommendations to increase positive health outcomes and minimize adverse health outcomes.

Initiative A temporary entity established to result in specific deliverables within a defined timeline and other constraints, either as part of a larger existing program or in an effort to start a new program.

Material Flow Analysis An analytical method to quantify flows and stocks of materials or substances in a well-defined system or boundary.

Plan A defined set of actions to achieve a particular objective or set of objectives.

Policy University-wide, mandatory requirements to manage and organize a specific set of actions. See policy.yale.edu.

Program A portfolio of projects that are managed and coordinated as one unit with the objective of achieving specific outcomes and benefits.

Standards Mandatory processes and/or procedures adopted by a unit or department to manage and organize a specific set of actions.

Task Force A group of experts formed for analyzing or investigating a specific issue or answering a specific question, disbanding upon completion of a specific deliverable.

Working Group A group of experts formed for providing input, advice, expertise, and counsel on a specific topic, meeting and/or being consulted on an ongoing basis as long as the topic is relevant.



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