Sustainable Development Primer for Higher Education Presidents, Chancellors, Trustees and Senior Leaders

This primer is brought to you by the <u>Higher Education Associations Sustainability Consortium (HEASC)</u>. HEASC is a network of higher education associations with a commitment to advancing sustainability within their constituencies and within the entire system of higher education.

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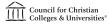










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Colleges and universities across the country are responding to student interest by integrating sustainable development principles and practices into the administrative and academic frameworks of higher education institutions. This robust national trend is being driven by student motivation, but also by increasing regulations and accountability pressures and the urgent societal sustainability challenges shared by all. This primer provides useful, high quality information on the crucial roles of presidents, trustees, and senior leadership in this area.

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The Role of Presidents

Presidents and chancellors have a unique set of opportunities to institutionalize sustainability into the operational and educational parts of the institution.

1. **Vision**—Share a vision that the institution is committed to meeting its mission of creating graduates who can contribute to solutions to our urgent societal issues.

Sample vision: "Education and actions for a sustainable future are an important part of fulfilling the institution's mission. We are committed to educating students about our urgent societal challenges and providing them with knowledge, skills and possible mindsets to participate in solutions."

- a. Articles
- b. Speeches
- c. Websites
- Professional Development—Direct and support the Chief Academic Officer, Student Life and Professional Development Offices to provide support for:
 - Faculty to help integrate sustainability into the curricula through initiatives in the Teaching and Learning Center and departmental budgets
 - b. Staff to integrate sustainability into operations and co-curricular activities
- c. Faculty, staff, and external stakeholders to identify projects to engage students in campus sustainability problem solving as part of their curricular and co-curricular experiences
- 3. **Planning**—Put forth vision and expectations that planning will include education and actions for a sustainable future explicitly within the:
 - a. Mission and strategic plan for the institution. The Association for the Advancement of Sustainability in Higher Education (AASHE) showcases strategic plans that include sustainability
 - b. Educational and operations master plans. AASHE member resources showcase dozens of <u>master</u> plans that include sustainability
 - c. Departmental planning—See Penn State's departmental planning information
 - d. Student co-curricular planning—See Penn State's Sustainability Planning Guide
- 4. Job Descriptions and Performance Evaluations—Ensure infusion of sustainability elements via:
 - a. Tenure and Promotion—include research and education for sustainability as acceptable activities within tenure and promotion criteria by encouraging and supporting departments to:
 - i. Include top interdisciplinary sustainability and societal problem-solving practitioner journals on the A list for tenure
 - ii. Include sustainability-related projects as part of tenure requirements
- 5. Accountability, Documentation, Recognition and External Dissemination
 - a. Ask for plans and quarterly updates from senior leadership about their follow through on the institution's potentials for sustainability across the campus in the curricula
 - b. Support effective benchmarking for sustainability in the curricula by:
 - i. Working with the Office of Institutional Research to measure sustainability learning outcomes (see The Sustainability Test for an assessment tool already in use in 30 countries)
 - ii.Supporting institutional assessment and benchmarking of sustainability by using the Sustainability Tracking and Rating System (STARS)

You can accomplish the above by communicating with senior administrators, using verbiage such as:

"We are committed to educating for a more sustainable future at this institution. It matches our mission of graduating students who can contribute to a better society. Attached is a list of items that can support this initiative through your office."

- c. Work with the communications office to disseminate accomplishments in Education for Sustainable Development (ESD) to the external community
- d. If you signed a higher education climate committment e.g (the <u>Climate Commitment</u>), make sure your committment is recognized and your data is easily accessible
- e. See below for the role of the <u>Chief Academic</u> Officer CAO section in this primer
- f. Direct your staff to utilize the resources available at HEASC

The Role of Trustees/Boards:

As early as 2008, the Association of Governing Boards (AGB) published information on the importance of sustainability in higher education. Trustees have a unique set of opportunities to oversee the institutionalization of sustainability into all components of the institution. Through their oversight role, trustees have the opportunity to influence:

 Mission—Trustees can understand and support through board policy decisions that education for a sustainable future fits the institution's mission. "It can affect core operations, the curriculum, student life, the college's relationships with everybody from local neighbors to national policy makers—and virtually every other dimension of the institution" (Pelletier, 2008). "For trustees, the takeaway message... is that sustainability has become a central consideration across the board in university business decisions. ... College leaders are increasingly drawing connections between sustainability, institutional missions, and higher education's fundamental purposes. Passing a tipping point, it has become a pivotal focus of management... That means that sustainability necessarily also has to be a central focus for college and university governing boards" (Pelletier, 2008).

- 2. **Planning**—Trustees can support the incorporation of sustainability into <u>campus planning documents</u> when these documents are revised.
- 3. Curricula and Employment Preparation—Trustees can support the infusion of education for sustain-ability. "Society has an interest in colleges' graduating students who will be good stewards of resources in the future, so curriculum is an important consideration in an institution's agenda for sustainability... Many institutions find that sustainability activities across campus create an ideal laboratory for learning" (Pelletier, 2008). Trustees can also understand how education for sustainability educates for employability (Hart Research Assoc./AAC&U, 2015).
- 4. Fiduciary—"Trustees need to consider the financial implication of their institution's sustainability commitments and considering both the costs and the short and long-term savings." Long term invest-ments in sustainability items such as energy efficiency and renewable energy retrofits, and programming to increase students' and staff awareness and change wasteful behaviors yield positive cash flow and lower operating costs, which lead to less cost volatility and healthier budgets. Sustainability projects have the potential to save money, particularly in energy savings, and increase revenue via energy generation, community partnerships and increased attractiveness to potential students. In addition, investment deci-sions also reflect and model the ethics of the institution (Pelletier, 2008).

Within the oversight role, trustees have the opportunity to encourage the overarching conversation about sustainability. Trustees can make sure that sustainability is merged with other institutional goals and included in the institution's planning documents and can ask for regular updates on progress.

"Sustainability, however, is a long-term proposition and as such requires a wide-ranging vision. The challenge for a college is to comprehensively rethink virtually all of its systems, operations, educational programs, and research in the context of sustainability. In this broad context, trustees can play a pivotal role in helping a college define a commitment to sustainability that meshes with the institution's other goals...And if an institu-tion happens not to be talking about sustainability...some trustees may want to ask why their college hasn't been more involved. ..it is clear that trustees and presidents have the opportunity to work collaboratively to provide insightful leadership on what may well be the preeminent issue of our time" (Pelletier, 2008)

The Role of Chief Academic Officers

Chief academic officers (CAOs) have a unique and important role to play so that education and actions for a sustainable future are robust within higher education. CAOs' role is to encourage individual faculty, departments and colleges within the institution to integrate sustainability education and actions into curricular, incentives and reward systems. Specific steps you can take include:

- Vision—Share the vision that your institution is committed to meeting its mission of creating graduates who can contribute to solutions to our urgent societal issues. Where to share this vision:
 - a. Meetings with faculty
 - b. On the CAO/Provost website
 - Meetings with staff of the Teaching and Learning Centers to develop related profes-sional development offerings

Sample vision verbiage:

Education for a sustainable future is an important part of fulfilling the institution's mission. We can educate students about our urgent societal challenges and provide them with the knowledge and skills to participate in solutions.

2. **Professional Development**—Provide support for:

- a. Faculty to help integrate sustainability into the curricula through initiatives in the Teaching and Learning Center and departmental budgets to:
 - i. Support events and activities and communications for faculty that encourage integrating sustainability into the curricula (use the Sustainability Improves Student Learning website and its Beginner's Toolkit plus the Disciplinary Associations Network for Sustainability Resources for faculty)
 - ii. Support initiatives to integrate knowledge of societal sustainability challenges and problem solving for solutions into curricula (e.g. within disciplines, across disciplines, as a minor/core requirements for all degrees)
 - iii. Support good pedagogy (e.g. <u>Key Components of Quality Sustainability Assignments/</u> sustainability improves student learning)
 - iv. Support interdisciplinary/transdisciplinary teaching
 - v.Nurture the creation of real-world projects in the curricula

- b. Staff to integrate sustainability projects for students into operations and co-curricular activities through using the campus and community as a living laboratory (see the Campus as a Living Laboratory guidebook)
- c. Faculty, staff, and external stakeholders to identify projects to engage students in campus and external sustainability problem solving
- d. Acknowledgement, utilization and nurturing of sustainability education champions on campus.
- 3. **Planning**—Put forth vision and expectations that planning will include education and actions for a sustain-able future explicitly within the:
 - a. Educational master plans (See the <u>University of Maryland's Education for Sustainability Work Group</u> Report)
 - b. Departmental planning (see Penn State's departmental planning information)
- 4. Job Descriptions and Performance Evaluations—Ensure infusion of sustainability elements via:
 - a. Tenure and Promotion—Include research and education for sustainability as part of tenure and promotion criteria—encourage and support departments to:
 - i. include top interdisciplinary sustainability and societal problem solving practitioner journals on the A list for tenure
 - ii.include community partnerships on sustainability related projects as part of the service section of tenure requirements
- 5. Accountability, Documentation, Recognition and External Dissemination
 - a. Ask for quarterly updates and plans from senior leadership and department chairs about their follow through on the institution's potentials for sustainability education
 - b. Support effective benchmarking for sustainability in the curricular by working with the Office of Institutional Research to measure sustainability learning outcomes (see The Sustainability Test for an assessment tool already in use in thirty countries)
 - c. Work with the communications office to disseminate accomplishments in Education for Sustainable Development (ESD) to the external community
 - d. Be part of a comprehensive assessment by using the <u>Sustainability Tracking and Rating</u> System (STARS)

Presidents and Chancellors across the country are talking about sustainability:

"For a young, urban research university like Portland State, sustainability has allowed us new ways of defining our work, creating new partnerships, and building stronger synergies across disciplines. It has improved perceptions about our engaged approach to education, helped raise private money, and attracted vital research dollars. And by integrating sustainability throughout our curriculum, we can give students from the humanities to engi-neering the set of tools they'll need to bring a sustainable mindset to life after college."

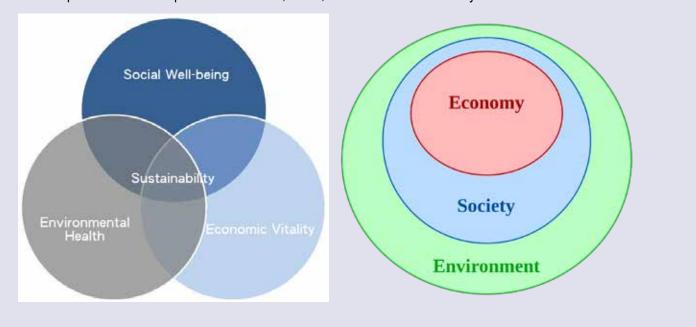
—Dr. Wim Wiewel, President, Portland State University

"But perhaps the most important implication of sustainability now for higher education is that it may help in the survivability of higher education itself. As we save the planet, we may be saving ourselves as an enterprise."

—Dr. Theodora J. Kalikow, President, University of Southern Maine

What Is Sustainable Development?

The most recognized definition of sustainable development is from the Brundtland Report, Our Common Future, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). The classic diagram includes the three triple bottom line components of sustainability: environmental health, social well-being and economic vibrancy. The second diagram shows an often portrayed version of sustainable development, where the economy is a subset of humanity's social system, and the social system is a subset of the global ecosystem. Both of these defi-nitions note that campus leaders can impact environmental, social, and financial sustainability.



"When I meet with my fellow university presidents, I am constantly struck by how many report that today's students are totally captivated about creating a sustainable planet. It's an enthusiasm and urgency I haven't seen since my days as a student during the space race and the national drumbeat for better science...We have the unique capability to leverage our strengths – in science, technology, economics, human health, social science and public policy – to confront the complexity of building a sustainable world."

- —Dr. Mary Sue Coleman, Former President, University of Michigan
- "Without a doubt, sustainability will continue to be a critical global challenge in the years ahead, and it's imperative that our students—across all disciplines—are equipped to contribute..."
- —Dr. Brian Rosenberg, President, Macalester College
- "The real goal, of course, is to produce the students who will put what they learn into practice, finding the breakthroughs we will need to achieve climate neutrality in the future."
- —Dr. John White, Former Chancellor, University of Arkansas

Sustainable Development and Higher Education's Mission

<u>Education for Sustainable Development (ESD)</u> enables people to develop the knowledge, values and skills to participate in decisions that will improve the quality of life now without damaging the planet for the future.

ESD is increasingly recognized as essential to higher education's mission of making the world a better place and preparing students for the world in which they will live. All graduates in all fields will face challenges regarding how our societies address urgent environmental issues (e.g. climate change), social issues (e.g. meeting basic human needs) and economic issues (e.g. economic security). Incorporating sustainability into education prepares these graduates with both the knowledge and skills to help contribute to a better world and also be better prepared to enter the workforce. The essential components of quality sustainability assignments (i.e. focus on creating solutions and solving real world prob-lems) improves both student learning and recruitment, and is increasingly expected by both students and employers.

National Trends and Market Drivers

Higher Education Ranking

<u>The Princeton Review</u> includes a rating that provides a comprehensive measure of a school's performance regarding: healthy and sustainable campus quality of life, preparation for employment in the clean-energy economy of the 21st century and citizenship in a world now defined by environmental concerns and opportunities, and environmentally responsible school policies.

Recruitment/Enrollment Impacts

According to a survey by the Princeton Review, 60% of respondents (prospective students and parents) said that having information about colleges' commitment to environmental issues would contribute to their application/attendance decisions (Princeton Review, 2015).

Preparing Students for Their Careers and Citizenship

The worldwide literature on sustainability learning outcomes supports that educating students to participate in solutions for a sustainable future also develops the skills they need to succeed in the workforce for the 21st century (Rowe & Hiser, 2016). A survey of graduate students by Net Impact found that most graduate students care about impact issues and 83% are willing to take a 15% pay cut to have a job that seeks to make a social or environmental difference in the world (Net Impact, 2014).

Sustainability Is Mainstream

There is a robust national trend to implement education and actions for sustainability in all types of higher education. There are now nearly 2,000 new degrees and programs related to sustainability, a 57% increase between 2008 and 2012. To date, over fifty national higher education associations are part of the Higher Education Associations Sustainability Consortium or the Disciplinary Associations Network for Sustainability (DANS). It's not an add-on or a partisan issue; it's good education.

Campus Operations and Sustainability

In additional to its educational influences, higher education also has social, environmental and financial impacts through the use of energy, water, food, waste issues, transportation, landscaping, purchasing, and other operations. For example, heating, cooling and electricity are a significant part of the institutional budget and also produce water and air pollution and greenhouse gas emissions. Better energy choices model less polluting, more sustainable energy use and pay for themselves, creating healthier finances for the institution.

Sustainability Impacts from Physical Campus Operations

Higher education staff and administration (e.g. business officers, facilities, purchasing, waste managers, food service staff, housing and student affairs staff) play a role in contributing to or mitigating the costs and the effects of pollution and climate change through the materials used, energy consumed and health impacts within the campus. Students can participate in sustainability projects both on campus and in the larger community, using the campus and the larger community as a living lab for sustainability. Living laboratories are a strategic direction of HEASC set forth in 2007.

Energy Buildings contribute up to 30% of global annual greenhouse gas emissions and consume up to 40% of all energy (<u>United Nations Environmental Programme, 2009</u>). The types of fuel used for energy, and the efficiency of heating/cooling systems play a major role in campus sustainability. Reducing utility costs by reducing energy consumption and shifting to cleaner fuels that pay for themselves is an example of sustainability on campus that is socially, environmentally and financially beneficial. See multiple examples of <u>energy-related projects</u> and direct the facilities leadership to implement a comprehensive energy efficiency and clean energy initiative.

Water By reducing campus water consumption, institutions can save money while reducing pressures on local aquifers, streams, rivers, lakes and aquatic wildlife. Viable projects such as improving water efficiency within buildings, decreasing stormwater runoff and treating stormwater on site help replenish natural aquifers, reduce erosion impacts, and minimize local water contamination.

Food Encouraging the use of local, healthy foods can empower and educate students, faculty and administration on the importance of the sustainability impacts of food production. Using local foods also stimulates the regional economy.

Waste Recycling and waste management are important for campus sustainability because addressing these issues can reduce costs, and model social, economic and environmental responsibility.

Transportation By providing and supporting alternative forms of transportation (bicycling, rideshare, bus passes, walking, etc.) the institution can reduce air pollution and promote healthy lifestyles. Campuses can help shape markets by creating demand for and enhancing the visibility of more efficient vehicles and cleaner fuels that reduce greenhouse gas and other pollution emissions and therefore improve local air quality.

Landscaping Sustainable landscaping can improve energy and water efficiency, eliminate the use of pesti-cides, and reduce pollution while sequestering carbon emissions. <u>Find examples of sustainable landscaping projects on campus</u>.

Purchasing Establishing sustainability oriented principles as part of the purchasing criteria reduces reputa-tional and exposure risks while modeling environmental and social sustainability. For example, by switching to non-toxic cleaning products, institutions reduce exposure impacts for all building occupants and the environ-ment, thereby promoting healthier work, living and learning spaces. <u>Find resources for your purchasing office at the Sustainable Leadership Purchasing Council</u>.

For more information on the above topics, see the <u>Resource Center of the Higher Education Associations</u> <u>Sustainability Consortium</u>.

Conclusion

Higher education institutions can help solve societal problems and contribute toward the national trend of educating for a sustainable future. Presidents, trustees and senior leadership have unique and important roles.

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