Sustainability Goals Project Report

September 28, 2015

INTRODUCTION AND BACKGROUND

The Ohio State University recognizes an ongoing and evolving need to engage in the creation, application, dissemination, and assimilation of knowledge of economic, environmental, and social sustainability as essential aspects of intellectual growth and development. The university seeks to support and contribute to informed behavioral change in society throughout this century and beyond. Ohio State recognizes its responsibility to educate and empower the current and future generations of professionals, leaders, and global citizens, and, through its own practices and policies, makes visible its commitment to sustainability.

On March 12, 2015, the President and Provost's Council on Sustainability (PPCS)was charged by Provost Joseph Steinmetz to develop a succinct set of strategic sustainability goals to validate Ohio State as a global model of sustainable operations and practices. To do so, the PPCS needed to ensure that its sustainability goals align with the university's four overarching core goals: teaching and learning, research and innovation, outreach and engagement, and resource stewardship. A copy of the original charge to the PPCS is located in Appendix A.

As a first step, benchmarking research data from peer institutions known for sustainability leadership was compiled and presented to the PPCS for guidance.

WORKGROUP SELECTION PROCESS

Four workgroups (Teaching and Learning, Research and Innovation, Outreach and Engagement, and Resource Stewardship) were established to align with the four overarching core goals, and PPCS members self-selected a workgroup in which to participate. Co-chairs for each workgroup were chosen based on interest in the topic and availability to lead the workgroup. In addition, the PPCS chair sought out respected faculty leaders who were not members of the PPCS as co-chairs to ensure a more robust level of faculty engagement in the process.

Workgroup co-chairs then selected workgroup members based on individuals' interest and expertise in the topic, knowledge of the community, and recommendations from PPCS members. Each workgroup included faculty, students, and staff. A list of all workgroup members is located in Appendix B.

ENGAGEMENT PROCESS

The PPCS was advised to seek broad counsel in developing these goals by identifying individuals and groups that could most effectively help frame Ohio State's commitment to sustainability. Therefore, it was important that the university community have opportunities to suggest sustainability goals for consideration. A website was established April 15, and a broad awareness and feedback effort was conducted during the week of April 20-24. The awareness effort included direct messaging to faculty, students, and staff; presentations to Undergraduate Student Government and the University Staff Advisory Council; and direct outreach at various sites across campus.

By April 30, the university community had proposed 113 sustainability goals or ideas through the online submission process. These proposed goals were distributed to all workgroup members as the workgroups began their goal-development process.

WORKGROUP APPROACH TO CHARGE

Each workgroup established a plan outlining when and how often their workgroup would convene, and how they would generate the sustainability goals for their overarching core goal area. A detailed explanation of how each workgroup approached its individual charge is located in Appendix C.

Upon completion, each workgroup submitted a set of goals and supporting materials to an integration team to synthesize and refine into a comprehensive document for this report. The integration team was made up of volunteers from each of the other four workgroups. As part of the integration process, the integration team collected feedback and input from workgroup co-chairs. A roster of the integration team is located in Appendix B. The results of this process are presented below.

PROPOSED STRATEGIC SUSTAINABILITY GOALS FOR THE OHIO STATE UNIVERSITY

Ohio State is uniquely qualified to positively impact economic, environmental, and social sustainability due to its unprecedented investment through the Discovery Themes initiative to address the global challenges of sustainability, as well as its scope and depth of existing expertise, land-grant status and mission, and multiple locations within a demographically representative state.

The PPCS recommends that the following overarching strategic vision be used to frame institutional strategic sustainability goals:

> *Ohio State is recognized as a world leader in developing durable solutions to the pressing challenges of sustainability and in evolving a culture of sustainability through collaborative teaching, pioneering research, comprehensive outreach, and innovative operations, practices, and policies.*

The following strategic sustainability goals and initiatives support Ohio State's core of teaching and learning, research and innovation, outreach and engagement, and resource stewardship.

Strategic Goals and Initiatives for Teaching and Learning

1. **Deliver a Curriculum** that provides Ohio State students at all stages of instruction — from General Education to professional and technical programs — with opportunities to understand sustainability holistically, framed by the environment, science, technology, society, the economy, history, culture, and politics.

2. **Address the Complexities of Sustainability** through a variety of learning formats, strategies, and occasions.

Ohio State will pursue strategic initiatives to advance sustainability through *teaching and learning,* not limited to the following:

- Develop core learning outcomes for sustainability;
- Develop new and existing academic sustainability programs as interdisciplinary specializations, areas of concentration, tagged degrees, minors, and certificates. Build synergy between the programs by surveying and promoting already existing courses, programs, and other university activities associated with sustainability;
- Provide diverse modes and opportunities for interdisciplinary teaching and learning of sustainability principles and practices via conventional classroom courses, distance learning courses, service learning courses, workshops, practicums, and field experiences. Incorporate sustainability into the GE curriculum;
- Establish an archive of distance-based modules across sustainability themes and topics that can be embedded in and combined to develop academic (credit) and continuing education (non-credit) courses; and
- Support cohorts of students following the model of the Ohio State Honors Collegium focused on sustainability research or education.

Strategic Goals and Initiatives for Research and Innovation

3. **Reward Sustainability Scholarship, Including the Scholarship of Engagement,** by providing incentives for students, faculty and staff to makes discoveries and stimulate creative efforts that promote and achieve sustainability.

4. **Magnify Sustainability Scholarly Output and Impact** to create new knowledge, solve real world problems, including for our own operations, and increase Ohio State's national/international reputation as a sustainability research leader.

Ohio State will pursue strategic initiatives to advance sustainability through *research and innovation,* not limited to the following:

- Survey the campus community to determine the highest priorities for faculty, staff, students, and administration, and their areas of greatest commitment;
- Identify current problems for Ohio State operations and work toward improvement using in-house academic and other professional expertise;
- Establish research recognition systems and awards when faculty, staff and students report impactful sustainability research;
- Expand the online dashboard to track sustainability measures and better study attitudes, beliefs, and behaviors of the campus community, as well as alumni;
- Develop programs to foster student research and interest in sustainability;
- Identify the measures, establish the baseline, and determine a timeframe to set goals for sustainability-related research (e.g., semantic analysis, bibliometrics, and alt-metrics); and,
- Measure research output through publications in national and international publications, meetings, student organizations, committees and other innovation.

Strategic Goals and Initiatives for Outreach and Engagement

5. **Foster Campus-to-Community, Students-to-Alumni Culture** of sustainability-oriented practices and educational and research experiences that students and alumni transfer into local and global communities.

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6. **Catalyze Engagement, Ownership, and Buy-In to Sustainability** via engaged and inclusive partnerships, on and off campus, that support the long-term economic, social and environmental welfare of the campus, surrounding neighborhoods, and the global community.

Ohio State will pursue strategic initiatives to advance sustainability through *outreach and engagement* not limited to the following:

- Incorporate outward-looking sustainability components into the curriculum and culture to ensure students, faculty, and staff demonstrate the ability to apply sustainability literacy in their personal lives and careers;
- Integrate sustainability initiatives into the Ohio State academic calendar, so that routine parts of Ohio State life (e.g., annual campaign, annual report) reflect a commitment to sustainability;
- Transfer best practices and behavior changes learned in the university culture of sustainability to stakeholders through active engagement with partners and through the global citizenship of alumni;
- Create and maintain relationships across the public and private sectors; and
- Enhance outreach communications by incorporating academic, operational, and outreach and engagement components to educate campus and the external community about Ohio State's commitment to sustainability, and encourage participation.

Strategic Goals and Initiatives for Resource Stewardship

7. **Implement specific, "world-leading" university-wide operational goals to reduce resource consumption, neutralize carbon emissions, and minimize waste,** including:

   a. Achieve carbon neutrality by 2050 per American College and University Presidents Climate Commitment;
   b. Reduce total campus building energy consumption by 25% by 2025;
   c. Reduce potable water consumption by 5% per capita every five years, resetting baseline every five years;
   d. Double the tree canopy, increase multifunctional and productive acreage by 10%, and reduce maintained acreage by 2025;
   e. Reduce carbon footprint of university fleet by 25% by 2025;
   f. Achieve zero waste by 2025 by diverting 90% of waste away from landfills;
   g. Increase production and purchase of locally and sustainably sourced food to 40% by 2025; and
   h. Develop university-wide standards for targeted environmentally preferred products and fully implement preferable products and services by 2025.

Ohio State will pursue strategic initiatives to advance sustainability in *resource stewardship*, not limited to the following:

- Continually update awareness of environmental impacts and constraints, resource supplies and demands, and social acceptability as a key strategy to meeting operational goals.
- Partner with a global expert on energy management and efficiency to develop a strategic long-term energy plan.

- Decrease motorized travel and transportation-related pollution and fuel consumption on campus.
  - Implement a "Park Once" policy on campus by 2025;
  - Establish benchmark data on the carbon footprint of the university fleet by 2016;
  - Develop ongoing monitoring tools for the carbon footprint of university fleet by 2017;
  - Increase the options for alternative modes of transportation; and
  - Decrease idling on campus by signal timing efficiency, policy awareness, and education.
- Increase the productivity of Ohio State landscapes using ecological principles of land management.
  - Develop an integrated pest plan;
  - Increase habitat/bio-diversity while limiting the use of non-organic fertilizers/pesticides; and
  - Develop a landscape stewardship plan.
- Implement leading sustainability purchasing practices and guidelines to balance costs and ensure financial and operational efficiency for all university purchases.
  - Require new bids/vendors to agree to meet sustainability goals set by the university in contract language and agreements;
  - Use electronic purchasing and payment methods;
  - Develop contracts that maximize recycling efforts for the supply chain; and
  - Require purchased goods to meet university guidelines for reduced packaging.
- Annually evaluate progress by using a Resource Stewardship subcommittee of the proposed university council of internal and external sustainability stakeholders.

As progress is made toward realizing institutional sustainability aspirations, four overarching, foundational principles of the university must take hold to ensure that accountability and a culture of sustainability becomes pervasive throughout Ohio State's culture, practices and programs:

1. **Ensure a transformational approach** by establishing a generational timeline to consider the impacts and trade-offs of decisions and economic, environmental, and social outcomes over many years and decades, instead of only the perspective of short-term economic returns.

2. **Utilize a council of internal and external stakeholders** (i.e., students, staff, faculty, alumni/ae, companies, non-governmental organizations, agencies) to serve in an advisory capacity for the ongoing formulation, development, implementation, and assessment of goals, initiatives, and outcomes.

3. **Conduct research on our progress** by developing and/or adapting research methodology to review and assess operational goals, and evaluate and publish the results with the aim of developing best practices and innovation for sustainability measurement.

4. **Incorporate relevant elements of sustainability into all college and support units' strategic plans,** physical plans, and other university guiding documents.

At least two of the four work groups commonly identified these additional strategic initiatives to help Ohio State advance sustainability relative to its overarching vision and foundational principles:

- Promote everyday behavioral and cultural changes to make sustainability an integral part of being a Buckeye.

- Communicate sustainability efforts and achievements to internal and external communities to demonstrate Ohio State's practices for and commitment to sustainability.

- Identify and use a respected management or rating system to ensure goals, initiatives, outcomes, policies, and procedures are based on continuous improvement. In addition, establish policies and procedures via an inclusive and transparent process to establish priorities that are policy-driven and goal-oriented with respect to economic, environmental, and social impacts.

- Integrate teaching, research, and operations through learning-by-doing approaches, including project-based service-learning, utilizing campus as a test bed and other research activities to expand sustainability efforts across and beyond campus.

- Set aside a percentage of operational savings and/or costs avoided to build a seed grant funding program to incentivize new research, innovation, operational best practices and scholarship to support our institutional sustainability goals.

SUGGESTED NEXT STEPS

Upon approval from Ohio State leadership, an awareness plan will be necessary to communicate the approved goals to the campus community followed by the development of a nonintrusive, centralized accountability system and implementation process to track progress made toward meeting the goals. Continued broad university engagement will be critical to successful implementation. The strategic initiatives contained in this document provide an excellent head start in developing strategies necessary to achieve the proposed goals, but should not be viewed as complete or thoroughly vetted.

As with any developing proposal or initiative, the financial and institutional costs involved with plan implementation must be a factor in its success. Among the next steps necessary for implementation of any or all of the proposed sustainability goals must be an assessment of the costs as well as the obstacles involved in execution of sustainability goals.

CONCLUSION

As important as the development of university sustainability goals is the process involved in determining those goals. The thoughtful, inclusive process used in examining the charge, soliciting input from the campus community, and selecting work group co-leaders and members created an environment for a successful goal development process.

Extreme care was taken to effectively communicate the charge and solicit ideas from the university community, and to select workgroup members that reflected a diverse and thorough cross-section of our campus. More than 100 specific sustainability goal recommendations were received from the community, and a total of 65 workgroup members comprised of students, faculty and staff helped develop the university sustainability goals.

The timing for development of sustainability goals is ideal. As these proposed sustainability goals are being submitted, our campus is also beginning a COMPAS (Conversations on Morality, Politics, and Society) Yearlong Conversation on Sustainability, which will engage the entire university during the 2015-2016 academic year on the challenges and opportunities that sustainability issues provide. It is the university's responsibility to listen, learn, and propose improvements that will better society. The COMPAS focus will be a starting point for ongoing conversations on how to incorporate best practices, suggested goals, and needed changes into future planning, and culture.

Many other sustainability themed events are being planned for the academic year, including a Discovery Theme Lecture by Gro Harlem Brundtland, former Prime Minister of Norway and a leading voice on climate change; the First-Year Experience Buckeye Book Community selection for Autumn Semester, *The Good Food Revolution*, and author visit by Will Allen; and targeted invited speakers focusing on sustainability topics, including Cardinal Peter Turkson, who will discuss the recently released Vatican Encyclical on Climate Change, and M. Sanjayan, American conservation scientist and Emmy-nominated news contributor and executive vice president at Conservation International.

The university is also considering a comprehensive approach to energy management. This innovative strategy could advance our commitment to sustainability while providing additional support for Ohio State's academic mission, reflecting the university's priorities. The university is investigating whether the project could provide benefits in a number of areas, including energy conservation, energy supply (securing the best rates), operations (leasing our energy infrastructure), and affinity (support for teaching, learning and research). The second phase of this work is estimated to begin in fall 2015 when the university may issue a Request for Information to the 40 respondents who were qualified in June 2015. Responses would allow the university to assess the potential value of a partnership and the level of interest in the market, with the potential to issue a Request for Proposals and make a final decision in 2016.

All of these activities and initiatives provide additional opportunities for Ohio State to accentuate itself as a leader in sustainability actions, advancements, and culture throughout the coming academic year. These endeavors, occurring in tandem with the establishment of prescribed sustainability goals for the university, will serve to grow and advance sustainability at Ohio State.

APPENDIX A

Charge to the President and Provost's Council on Sustainability

THE OHIO STATE UNIVERSITY

Office of Academic Affairs

203 Bricker Hall
190 North Oval Mall
Columbus, OH 43210

614-292-5881 Phone

Date: March 12, 2015

To: President and Provost's Council on Sustainability

From: Joseph E. Steinmetz, PhD, Executive Vice President and Provost

Re: New Charge to the PPCS

The President and Provost's Council on Sustainability was created to provide strategic and policy advice on sustainable practices, programs and projects throughout The Ohio State University.

Accordingly, the President and Provost are charging the Council to develop a succinct set of strategic sustainability goals that will make Ohio State a global model of sustainable operations and practices. To do so, the Council must ensure that its sustainability goals align with all four of the university's overarching core goals: teaching and learning, research and innovation, outreach and engagement, and resource stewardship.

This means that the sustainability goals should include but not be limited to:

- Ensuring Ohio State's curriculum promotes teaching and learning both in and outside the classroom to boost student awareness, appreciation and knowledge of sustainable practices and engaging our campuses and communities in sustainability literacy;
- Recognizing and encouraging faculty and student research and innovation in such areas as energy conservation, renewable energy, water conservation, and sustainable agriculture;
- Operating our campuses and related facilities using innovative technologies and practices that enhance sustainability and in a manner in which resource stewardship reaches all aspects of our operations including carbon neutrality, energy reduction, emissions reductions, recycling and zero wastes efforts, water and food conservation, transportation, purchasing and planning.

The sustainability goals should be founded on principled practice and foster the active engagement of all members of our university community. Once we have our strategic goals in place, we will move to the phase of establishing strategies and objectives to meet these goals, but that is not the charge at this time.

The Council is encouraged to seek broad counsel in developing these goals, seeking out those individuals and groups that can most effectively help frame Ohio State's commitment to sustainability.

A preliminary set of goals should be presented to the President and Provost 90 days from the date of this charge.

APPENDIX B

Sustainability Goal Workgroup Rosters

Teaching & Learning

Co-Chairs:	Gil Bohrer, COE
	Adrian Rogers, Newark Campus

Members:	Michael Bisesi, COPH
	Peter Curtis, CFAES
	Neil Drobny, FCOB, CFAES
	Matt Frankel, Student, CEGE
	Elena Irwin, CFAES
	Rick Livingston, CAS
	Tom Reeves, SL
	Amy Youngs, CAS
Resource:	Paul Laurent, OEE

Outreach & Engagement

Co-Chairs:	Ola Ahlqvist, CAS, OAA
	Lindsay M. Komlanc, Univ. Comm.

Members:	Kimberly Burton, COE
	Jason Cervenec, BPRC
	Nicole Kraft, CAS
	Gina Langen, OEE
	Carlos Lugo, SL
	Ken Martin, CFAES
	Andrea Patterson, Student, CAS
	Mike Penner, ATH
	Sam Reed, Student, SENR
	Steve Volkmann, PPARE
	Linda Weavers, COE, A&S, COPH

Resource:	Stephen Myers, OAA, CFAES

Research & Innovation

Co-Chairs:	Casey Hoy, CFAES
	Caroline Whitacre, OAA, OSUMC, OSUVM

Members:	Erich Grotewold, CFAES
	Joseph Fiksel, COE, OAA
	Don Hubin, CAS
	Ellen Mosley Thompson, CAS

	Paula Mouser, COE
	Mark Partridge, CFAES
	Sam Reed, Student, SENR
	Giorgio Rizzoni, COE, CAR
	Pam Salsberry, COPH
	Ramteen Sioshansi, COE

Resource:	Jeff Agnoli, OR

Resource Stewardship Committee

Co-Chairs:	Bhavik Bakshi, COE
	Lynn Readey, FOD

Members:	Amy Burgess, A&P
	Russ Chung, BusFin
	Jennifer Cowley, OAA, COE
	Kelly Des Roches, BusFin
	Mike Dixon, FOD
	Jeffery Gilis, OSUMC
	Tony Gillund, ESS
	Abigail Grossman, Student, CAS
	John Lane, BusFin
	John Lenhart, COE
	Jay Martin, CFAES
	Mark McCord, COE
	Kim Moss, PPARE
	Bill Orosz, OSUMC
	Don Patko, ATH
	Molly Ranz-Calhoun, SL
	Jeff Roe, SL
	Greg Rose, OAA, Marion Campus
	Beth Snoke, A&P
	Lonnie Thompson, CAS
	Stephanie Tower, Student, OSUVMC
	Steve Volkmann, PPARE
	Karen Wruck, FCOB
	Ahmed Zia, SL

Resource:	Aparna Dial, ESS

Integration Team

Co-Chairs:	Michael Bisesi, COPH
	Greg Hitzhusen, SENR

Members:
    Jeff Agnoli, OR
    Aparna Dial, ESS
    Casey Hoy, CFAES
    Elena Irwin, CFAES
    Lindsay Komlanc, Univ. Comm.
    Gina Langen, OEE
    Stephen Myers, OAA, CFAES
    Andrea Patterson, Student, CAS
    Lynn Readey, FOD
    Greg Rose, OAA, Marion Campus

Facilitators:
    Paul Laurent, OEE
    Melinda Nelson, OAA

APPENDIX C

Workgroup Meeting Details

Teaching and Learning Workgroup

At the first meeting, the Teaching and Learning Workgroup discussed work directions, approaches, and goals, and set up a work timeline; identified any work already completed that might help inform its discussions; and set up a box.osu work-space to post relevant documents and comments.

A summary of discussed points and a document summarizing a previous committee's recommendations was sent electronically after meeting one, and these acted as the draft for the workgroup's two documents: the goals and the strategies. Members of the workgroup commented online, via email, and by adding to and editing the documents on Box.

Prior to the second and final meeting, comments were compiled and edits made to the next round of drafts for the final documents. At the second meeting, all workgroup members worked together to reach a final version that was agreed on by all.

Research and Innovation Workgroup

Initial Research and Innovation Workgroup meetings focused on clarifying the Provost's charge and discussing guiding principles to create the goals statements. Through the course of five meetings, the workgroup considered other institutions' and agencies' sustainability goals and compared and contrasted that information with what would work best for Ohio State, central Ohio, and beyond.

After brainstorming in face-to-face meetings, the workgroup distilled and refined guiding principles, goals, and associated strategies through conversations. Finally, consensus was achieved through discussion and revisions.

Outreach and Engagement Workgroup

The Outreach and Engagement Workgroup met on three different occasions to deliberate and draft a set of goals that reflected a consensus view of the most important goals. During the first meeting, members brainstormed to create an operational "definition" of sustainability for the purposes of this task; formed a group perspective on what effective goals look like; and discussed what type of goals were most likely to be effective at this stage of the sustainability goal setting process.

Members brought draft goal ideas to meeting two, and a two-step process, using small breakout groups, was used to discuss and prioritize draft goals.

During the third and final meeting, sub-groups re-prioritized and clustered the 12 draft goals into three to five succinct categories/areas that served to formulate finalized draft goals. Through small and large group discussions, the committee agreed on four areas. Each area was again subject to small group deliberations, one goal area per group, to draft the finalized goal statements.

Resource Stewardship Workgroup

The Resource Stewardship Workgroup decided to develop proposed goals in 10 distinct areas: Greenhouse Gas, Built Environment, Water, Materials Management, Grounds, Food, Planning, Transportation, Purchasing, and Investments. There were 21 members on the committee, including individuals with professional expertise in every area. For example, the university's chief investment officer and university landscape architect were among the committee members.

Facilities Operations and Development's Office of Energy Services and Sustainability (ESS) provided technical support for the committee. Among other things, ESS provided committee members with comparable goal language from other universities, Association for the Advancement of Sustainability in Higher Education STARS benchmarking data from 25 different institutions including Ohio State, data on Ohio State current efforts in such areas as energy reduction and recycling diversion rates, and a set of "Straw Person Goals" drawn from various sustainability plans.   Other committee members shared data in multiple areas, for example, current purchasing, dining, investment, and transportation guidelines and practices.

The committee subdivided into four groups to focus on specific sub-groups of goals that had some commonality:
    Group #1 Carbon, Built Environment, and Water
    Group #2 Materials Management, Grounds, Food
    Group #3 Planning and Transportation
    Group #4 Purchasing, Investments

Use of the sub-group format aided in accelerating the discussion and analysis of goal formation to meet the 90-day target. The committee met once each week over 10 weeks. The first hour of each meeting was spent in sub-groups, and then the entire group shared questions, information and ideas. The final three weeks of meetings were spent with the entire committee reviewing, shaping, and changing where needed goals for each of the 10 distinct areas until consensus was formed.