

The Harvard Climate Collaborative Annual Report

Student actions and recommendations

2009-2010

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Chapter 1

Introduction

Background

The Harvard Climate Collaborative (HCC) was founded in the spring of 2008 to serve as a University-recognized communication network bringing together key student and administrative leaders to ensure continuity of student participation and administrative accountability as the university works towards the 2016 Greenhouse Gas reduction goal. In its inaugural year, the group focused on connecting student leaders with key administrators involved in the GHG reduction commitment. This year (2009-2010), in response to the formation of a separate Student Advisory Group by Office for Sustainability (OFS) and to feedback from HCC members in the spring of 2009, HCC shifted its focus to student collaboration and knowledge-sharing, providing a network and monthly forum for student environmental leaders from every Harvard school to share best practices and new initiatives, and to address common challenges. HCC members met once a month to discuss approaches to major sustainability concerns that are relevant across the University, i.e. energy use, water use, and waste management, through presentations and discussion.

Purpose

The Harvard Climate Collaborative Annual Report serves two important roles. First, it provides a list of recommendations, collectively agreed upon by the members of the HCC, in consultation with OFS, and directed to every school at Harvard. The three recommendations in this report were selected as recommendations that are achievable at every Harvard school in the 2010-2011 academic year. To fulfill these recommendations will require support from administrators and collaboration among staff and students at each school. This year, the recommendations focus on increasing awareness, participation, and support for existing sustainability initiatives at Harvard. Second, the document includes Individual School Reports to summarize and highlight student-led initiatives at each participating school during the 2009-2010 academic year. These reports serve to provide institutional memory for future student leaders and to demonstrate continued student

participation in the university-wide sustainability efforts.

Authorship

The annual report was written by the members of the HCC. Individual reports were authored by the representatives from each school. The recommendations were produced from group discussion, and the recommendations and final report were compiled and edited by the HCC coordinators.

Audience

The report is intended for a diverse audience. It is a source of information and concrete recommendations for University administration working towards emissions reductions, a means of promoting institutional memory for student environmental leaders, and a means of communicating recent accomplishments and further needs to the broader Harvard community. Secondly, the report is suitable for an external audience using it to learn about student perspectives in the collective process of working towards emissions reductions and broader sustainability at Harvard.

Chapter 2

HCC members

HCC Coordinators

Karen McKinnon (College)
Emma Crossen (HDS)

HMS

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HKS

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College

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Stephen Jensen
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Tiffany Curtis
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GSD

Jonathan Sargent

HLS

Sandra Ray

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Steve Dave Jordan

HILR

Irving Bailit
Kitty Beer
Norman Viehmann

Chapter 3

Recommendations

1. Include sustainability initiatives in new-student orientation at each school.
 - (a) *Rationale: Orientation provides an unparalleled opportunity to introduce new students to the university-wide greenhouse gas reduction goals, along with school-specific sustainability initiatives, and to ensure that every student at Harvard is oriented to sustainability as a central commitment of the university.*
 - (b) The sustainability portion of orientation should include the following components:
 - i. Introduction to University’s greenhouse gas reduction goals
 - ii. Introduction to current sustainability initiatives at the specific school and how students can be involved.
 - iii. Introduction to key sustainability leaders at school (i.e. student groups, facilities manager, green team coordinator, key contact at OFS, etc.)
 - iv. Introduction to sustainable best practices for events, groups and individuals to follow on campus. (This may be more effectively incorporated into later trainings or information sessions for student leaders.)
 - (c) The school-specific orientation should also involve input from students and staff who are actively involved in sustainability initiatives at the school. If possible, allow a student or other Green Team member and OFS staff member to participate in the presentation.
 - (d) OFS resources to support this recommendation include:
 - i. To support schools in featuring sustainability at orientations, OFS will provide an orientation toolkit, including presentation templates and audio/visual resources of varying lengths, made available to orientation coordinators at each school.
 - ii. OFS staff will be available to speak at new-student orientations upon request.
2. Publicize to the school community regular updates about the school’s progress on key sustainability measures.

- (a) *Rationale: While schools collaborate with OFS to collect large amounts of data about their sustainability initiatives and contribute much time and energy to tracking progress, the information could be more effectively communicated within school communities. A more effective sharing of this information will inform students, staff, and faculty about progress and setbacks, and better equip the community to advocate, support, and participate in progress toward the University-wide and school-specific sustainability goals.*
 - (b) Updates should include specific, quantitative information about the school's progress on energy use, water use and waste disposal.
 - (c) Determine and utilize the most effective internal networks at the school for communicating with students, staff, and faculty - such as school calendars, printed publications, signage, e-mails, and community events - to provide regular sustainability updates.
 - (d) Participate in and distribute the school-specific OFS sustainability report card and make the school's completed report card available on the school website and in school facilities.
 - (e) OFS resources to support this recommendation include:
 - i. Sustainability Report Card Template (OFS)
 - ii. Sustainability Communications Best Practices Checklist (OFS)
3. Allow and provide for more effective visual cues in school facilities to encourage behavior change.
- (a) *Rationale: Visual cues are one of the most effective ways to promote behavior change and reinforce popular participation in the University-wide and school-specific sustainability goals. Additionally, the process of selecting, producing, and displaying visual cues provides a venue for the school community to evaluate its particular sustainability opportunities and to creatively respond by determining what communication measures are most effective at the school for promoting behavior change.*
 - (b) Provide signs at trash/compost/recycling bins to direct proper disposal of waste in the correct bin.
 - i. . Image-based signs (both two- and three-dimensional) are often more effective than word-based signs. Examples of sign options are available from OFS.
 - ii. Engage students and other occupants in design and creation of signs. This could occur through, for example, a student sign competition, a sign suggestion box, a display that changes periodically throughout the year, etc..
 - iii. To encourage consistency and sign recognition across the university, OFS encourages incorporating the OFS Green Shield logo into signs.
 - (c) Work with OFS and School facilities and communications leaders to allow and encourage more frequent and strategic placement of sustainability tips and facts throughout

facilities (i.e. in common areas, classrooms, dorms, libraries, departments, elevators, dining areas and bathrooms.)

- i. Use and expand upon existing OFS resources, including the OFS Green Tip of the Month, facts about energy and water use reduction, etc..
- ii. Encourage student participation to select and generate sustainability tips and facts, based on outside sources and observations about the particular behaviors and habits at the school.

(d) OFS resources to support this recommendation include:

- i. OFS Green Tip of the Month (green.harvard.edu/greentip)
- ii. Recycling sign downloads
(<http://green.harvard.edu/reducing-waste/downloads>)
- iii. Examples of other green building, green office, etc. signs available from OFS

Chapter 4

Individual school reports

4.1 Harvard College

Student group overview

- Group name: Environmental Action Committee (EAC), founded 1979 (www.greencrimson.com)
- Group officers (HCC representatives starred):
 - *Gracie Brown, Co-chair, 2011, lgbrown@fas.harvard.edu
 - Jackson Salovaara, Co-chair, 2011, jsalov@fas.harvard.edu
 - Serena Zhao, Secretary, 2012, syzhao@fas.harvard.edu
 - Jennie McKee, Treasurer, 2011, jmckee@fas.harvard.edu
 - Anika Petach, Outreach chair, 2013, apetach@college.harvard.edu
 - Tim Treuer, Events chair, 2010, treuer@fas.harvard.edu
 - Vinay Trivedi, Communications Chair, 2013, vinaytrivedi@college.harvard.edu
 - John Beatty, Policy Chair, 2011, jbeatty@fas.harvard.edu
 - Kimberly O'Donnell, Social Chair, 2012, kaodonn@fas.harvard.edu
 - *Sophia Wen, Environmental Justice Chair, 2012, swen@fas.harvard.edu
 - Jane Baldwin, Earth Day Co-Chair, 2011, jbaldwin@fas.harvard.edu
 - Sachi Oshima, Earth Day Co-Chair, 2013, sachi.oshima@college.harvard.edu
- Group mission statement: The Harvard College Environmental Action Committee seeks to help achieve a sustainable world and protect the environment for its human and non-human inhabitants. To this end, the EAC aims to raise the consciousness of Harvard's students to the effect of their own actions on the environment and to their status as stewards of this planet's resources. We advocate specific changes at the campus, local,

national, and international levels. Furthermore, we serve as a forum for discussion and a source of information on environmental issues. Finally, we seek to enrich our members through fun and fulfilling experiences.

Actions for the year

- Overview of group actions undertaken during the year: This year, the EAC has focused on internal leadership development, education outreach to the general student body, and developing our community ties. Through motivating new members of the EAC to take leadership positions, we have increased our momentum and support base. During the fall we reached out to the broader student body on awareness campaigns, mostly directing our efforts towards education around the Conference of the Parties in Copenhagen (see below). This spring, we are turning our attention closer to home, focusing on environmental justice issues in the Boston area. In this capacity, we are working closely with the Philips Brooks House Association and reaching out to Cambridge and Boston community groups.
- Spotlited actions
 - Road to Copenhagen: During the fall of 2009, the EAC focused our efforts around the upcoming Conference of the Parties in Copenhagen. We put together a week of events leading up to the International 350 Day of Action. Our goal during this week was to increase student awareness around the importance of the Copenhagen discussions. We hoped that by the end of the week the majority of Harvard students would be aware of the Conference's existence and would have a sense of how to get further involved by engaging in 350 activities. We kicked off the week with a climate convocation at which Bill McKibben spoke at Memorial Church. Memorial Church was extremely helpful and supportive; collaborating with them was very beneficial for the EAC. Another successful event during the week was our final event, joining the Home Energy Efficiency Team (HEET) weatherizations in the Cambridge area. Students from both the EAC and other student organizations joined us for a few hours of weatherization work. Less successful events during the week included talks, movie viewings, and a pub night. From this week we learned that the first step in planning anything requires understanding what you hope to achieve. From that understanding, formulate tangible goals, so that by the end of your event or campaign you know whether or not you have achieved what you set out to do. Had this been done early on in the Road to Copenhagen planning, the general EAC could have had a better sense of what we were working towards and how we were faring.
 - Philips Brooks House Weatherization: For the spring of 2010, we are working with the Office for Sustainability (OFS) to put together a weatherization of the Philips

Brooks House (PBHA). This process will culminate in a weatherization event with about 40 students from EAC and PBHA working under the instruction of OFS and Facilities and Maintenance Operations (FMO) to weatherize the building. The primary objectives of this event are to build relationships with PBHA and OFS, as well as teach students valuable weatherization skills. Also, we want to build a weatherization model, similar to the HEET model that can be employed in other Harvard buildings. While the event has not yet happened, already the planning process has been educational for the student leaders working with OFS who have gotten the chance to see how energy audits and weatherizations are done. As well, some very positive relationships between PBHA, OFS and EAC have been formed from the planning process. We hope that, during and after the weatherization event itself, relationships between students in PBHA and EAC will be further developed.

- Important allies
 - As already discussed, we have had a great relationship with the Office for Sustainability this year. In particular Heather Henriksen, Gosia Sklodowska, and Nathan Gauthier have devoted a lot of time to working with us. As well, Brandon Geller and the undergraduate eco-REPs have helped us with support and planning throughout the year.
 - We have also formed stronger alliances with the Philips Brooks House Association. In particular, we have worked with our Programming Coordinators, Edwin Hargate, '11 and Tara Venkatraman, '11. In addition, we have begun to meet and work with Robert Bridgeman, our Director of Programs who has been a very valuable resource for connecting us with the Boston community.
 - Lastly, in our focus on environmental justice we have formed ties with the Boston and Cambridge communities. In particular, we have worked with the Home Energy Efficiency Team (HEET). As well, we have reached out to Alternatives for Community and Environment (ACE) through Dave Jenkins. We continue to reach out to and work with other community environmental groups.

Looking ahead

- The EAC has always had a commitment to reaching out to the Harvard College community of students, faculty, and administration as well as the wider communities of college, governments, and citizens beyond Harvard. This term, we refocused our attention to our local community of Harvard and Cambridge and next year we will continue to build our relationships with peer organizations outside of strictly environmental focuses in order to foster awareness and tangible action. We also hope to continue our work on the newly planted Harvard Garden, Verifast Cycles, Policy Advocacy, Environmental Justice programs and expand our Weatherization efforts in collaboration with HEET.

- This term the EAC established strong connections with PBHA and hope by next fall we can help create and integrate a strong environmental curriculum into PBHA programs teaching youth in the community. The EnviroEd program (a branch of the EAC which focuses on teaching middle school students about the environment) has already been approached by Chinatown Afterschool Program, and Mission Hill Afterschool Program. We hope to create a template curriculum which can be provided to all PBHA programs and any other interested parties.
- Our connection with the PBHA has also been strengthening with an event to weatherize the building. We hope to use this first step to using weatherizations to generate greater enthusiasm, involvement and awareness through-out the Harvard campus. Next fall we will assess the impact of the PBHA weatherization and the feasibility of expanding the program to have HEET train students to be certified weatherizers and weatherize other buildings on campus.
- In addition, next year we hope to implement a series of Environmental Justice programs. This spring we spent time forming connections with local organizations in Cambridge and Boston from Alternatives for Community and Environment to the Boston Asthma Coalition. Next year we will publicize the available volunteer opportunities to all students. From there, we hope to use the programs to better spread awareness of environmental justice issues as well as use it to build a community of collaborating students from different organizations and fields.
- This year, also marks the first year of the Harvard Garden and completion of the pilot program of Verifast Cycles. An ongoing interest to implement better environmental curriculum into the Harvard catalog is also under development. These projects will take much effort, organization and interest to maintain and may be challenge to generate more student involvement in these services and issues.
- Desired Information/Support Structures: The EAC, REP program and GHG task force under OFSS have all been doing very similar projects throughout campus. In fact many events are held in conjunction and many of the same members are involved in all three. However, at times the groups only find out after that they were working on similar projects and resources are wasted. The EAC hopes that we can remain abreast of the discussions and decisions of these bodies through updates and discussions with students to create a higher level of participation and ultimately, actions.
- Officers for next year
 - Jackson Salovaara, jsalov@fas.harvard.edu

4.2 Harvard Divinity School

Student group overview

- Group name: EcoDiv, founded spring 2008
- Group officers (HCC representatives starred):
 - *Tiffany Curtis, MDiv 2011 tcurtis@hds.harvard.edu
 - *Tim Lehmann, MTS 2011 tlehmann@hds.harvard.edu
 - Whitney Barth, MDiv 2011 wbarth@hds.harvard.edu
 - John Coggin, MTS 2011 jcoggin@hds.harvard.edu
 - Emma Crossen, MDiv 2010 ecrossen@hds.harvard.edu
 - Grace Egbert, MTS 2011 gegbert@hds.harvard.edu
 - Tim Severyn, MTS 2011 tseveryn@hds.harvard.edu
 - Jeannie Sur, MDiv 2011 jsur@hds.harvard.edu
- Group mission statement: EcoDiv brings ecological perspectives to bear on the study and practice of religion and ministry. EcoDiv promotes and hosts speakers, conversations, films, workshops, advocacy, and other events. EcoDiv works closely with the HDS Green Team to support infrastructure and behavior change at HDS. EcoDiv also offers religious awareness and sensibility to larger ecological efforts, through collaboration with other organizations to coordinate events and provide support.

Actions for the year

- Overview of group actions undertaken during the year
 - This fall, we began our semester through our presence at Orientation, where we distributed information about EcoDiv, about green spaces in the community, and bookmarks with an events calendar and local trees. We also presented about composting at the orientation meals, to instill in the new students an ethic of eco-consciousness as part of the culture of HDS. Shortly thereafter, EcoDiv created dynamic three-dimensional signs to assist community members in disposal of waste, by clearly delineating what can go into waste, recycling, and compost. Perhaps spurred by this, HDS has gone on to become the top recycling campus of Harvard University, with a 70% recycling rate. In the fall, we also organized a campus-wide freecycle, including clothing, kitchen items, school supplies, and other items for back-to-school. All remaining items were donated to the Goodwill. We also hosted a student breakfast conversation with eco-theologian Sally McFague. The HDS community hosts a Noon Service every Wednesday, led by a different student

organization. EcoDiv led one of these services in November, providing a ritual space for linking spirituality and ecology. Each week HDS also hosts a community tea, and EcoDiv helped promote reusing among participants, by highlighting certain BYO practices, such as bringing mason jars, reusable mugs, cloth napkins, cutlery, and so forth. Members of EcoDiv also participated in the Boston Theological Institutes Religion and Ecology meetings, the 350 Day of Climate Action and in the Boston Common Sleep Outs organized by Students for a Just and Sustainable Future (formerly known as Massachusetts Power Shift).

- Starting in the spring semester, in collaboration with Denise Hart of Food and Water Watch, EcoDiv organized a screening of the documentary *Tapped*, along with a discussion with Denise Hart. EcoDiv also hosted an Eco-Salon, which mapped the ecology of conversation, providing an opportunity to think creatively about our relationship to ecology. We hosted a tour of the Harvard Herbaria to learn more about our local environment, and will be hosting a tour of the Fresh Pond water treatment facility, with a similar goal. EcoDiv has continued its involvement with the HDS community garden, helping to start a separate official student group for the garden. Building upon momentum from the *Tapped* screening, we also have begun organizing around eliminating bottled water from our campus, working with the Green Team and Facilities to improve access to tap water in HDS buildings.
- Spotlighthted action: As mentioned, we organized a successful screening of the film *Tapped* with the collaboration of Food and Water Watch. We had a very large turnout, including community members, students, and staff. In reaction to that, momentum has built around providing alternatives to bottled water on our campus, and participating in statewide bottle legislation.
- Important allies
 - HDS green team
 - Roy Lauridsen, the Facilities Manager
 - Leslie McPherson-Artinian, in the Office of Ministry Studies, who has been a key ally in the realization of the community garden project.
- Lessons learned
 - The administration and facilities staff is a highly supportive resource and has taken initiative for much of the greening at HDS. We feel so fortunate to have such a supportive staff.
 - There is community energy around creative projects that expand our idea of ecological engagement.
 - There are diverse ecological perspectives, and we want to create more spaces to allow those to flourish
 - We learned just how bad bottled water really is!

Looking ahead

- We do not have specific actions planned for next year, but hope to continue to be a vibrant part of the HDS community, providing spaces for creative engagement with ecological issues, and challenging perceptions about environmental concerns.
- Officers for next year
 - Tiffany Curtis, tcurtis@hds.harvard.edu
 - Grace Egbert, gegbert@hds.harvard.edu
 - Tim Lehmann, tlehmann@hds.harvard.edu
 - Jeannie Sur, jsur@hds.harvard.edu

4.3 Harvard Extension School

The Harvard Extension School (HES) is a part of the Department of Continuing Education (DCE), which also includes the Harvard Summer School (HSS), the Harvard Institute for Learning in Retirement (HILR) and the Crimson Summer Academy (CSA).

Student group overview

- Group name: Harvard Extension Environmental Club (HEEC), founded in 2004 (<http://www.harvard.edu/hes/hec/>)
- Group officers (HCC representatives starred):
 - *Julia Cai, juliacai@post.harvard.edu
 - *Warren Anderson, wpanders@fas.harvard.edu
 - DCE Green Team: Composed of staff, including facilities personnel, and HILR members who work with OFS to green the DCE buildings of 51 Brattle St., 53 Church St. computer lab, and about two floors in a couple of Story St. buildings.
- Group mission statement: To provide an extended network and connection to the Harvard University community by organizing social activities and events related to environmental and sustainability issues and interests.

Actions for the year

- **HEEC** has expanded regular programming this year, including raising awareness of external events and providing more information and resources for members. They have also started some new initiatives that will help develop and mobilize the network of distance students and alumni.

- Events and Education: HEEC continues to host movie nights, which included *Earth Days* and *Blue Gold: World Water Wars* this year. The Board organized a LEED training course and Hazmat certification program and continued the Clubs involvement with the clean-up of the Charles River on Earth Day. The HEEC initiated a university-wide panel discussion series, which featured a host of professionals from the fields of energy, environmental science and sustainability management. The events targeted a career-seeking student audience, looking to launch (or switch into) a career in the aforementioned fields (approximate average audience: 40 people). In terms of impact, several students developed professional leads for future internships, jobs and general career advice in the aforementioned fields. The discussion series was designed to be broad in scope, allowing for maximum coverage of different hot-button issues, such as: Carbon Finance (9/23/09); Water Supply Efficiency (10/21/09); Waste Recycling (11/17/09) Cancelled due to holiday; Corporate Social Responsibility (3/24/10); Sustainability at Fenway Park (4/28/10); Nuclear Power in the U.S. (May 2010 Exact date TBD). Each event was co-sponsored by the Harvard Extension Environmental Club and the ALM in Sustainability Environmental Management program at HES.
- Environmental Events On- and Off-campus (HEEC Newsletter): HEECs new informative bi-monthly newsletter lists events throughout campus, including HUCE, OFS and HES, in the greater Boston area, and even distance ones in other cities. HEEC members are often volunteers or attendees at these events, helping to enrich Club involvement and connections.
- Environmental Social Events: HEEC engages in social events that help foster environmental awareness and education, and provides networking opportunities for its members, many of whom are enrolled in or alumni of the Extension School Sustainability Environmental Management program. The Club has regular Socials at the Queens Head Pub and, once again, organized a canoe trip to the South Shore to explore its rivers and wildlife, a hiking trip to Mt. Monadnock and a ski trip to Smugglers Notch, the second greenest ski resort in the country.
- Distance Ambassador Program: A new initiative this year, the programs Distance Ambassadors are volunteers who help coordinate and communicate events in their regions throughout the country.
- **DCE:** The budget freeze has made it more difficult to make changes and each project must be evaluated on the basis of financial payback (five years) and energy savings. However, DCE has made strides in applying gradual measures, including implementing initiatives from last years report:
 - Changed light bulbs to more efficient T-8s and T-5s
 - Installed occupancy sensors in rooms and also on vending machines

- Converted EXIT lighting to LEDs in renovated areas
 - Computer lab schedules adjusted for power down when PCs are not in use
 - Computers at 51 Brattle are set to go to standby mode after an hour
 - Adjusted HVAC scheduling, less runtime for MAU
 - Converting elevator to ReGen drive system which will reduce energy used by 75%
 - Recommend double-sided printing, use 30% recycled paper, recycle paper and packaging from supplies and furniture, and ask vendors to use recycled stock and environmentally-friendly ink
 - Changed aerators in restrooms to reduce water use
 - Testing waterless urinal
 - Mugs are provided for employees and paper cups were eliminated; also distributed grocery bags to staff to reduce the use of plastic bags
 - Use green cleaning products and also used green products, such as flooring and Lees carpeting, for recent renovations
 - Conducted thermal scan of 51 Brattle to ensure no heat loss and also requested energy audit for 51 Brattle and 53 Church St.
 - CSA has instituted single stream recycling and also extended recycling of e-waste, plastic bags, etc., and switched to CFL light bulbs; they now use 30-100% recycled paper and supplies, provide mugs for staff and adjust the thermostat to energy saving temperatures
- Important allies
 - Pat Shea Director of Operations at DCE, 617-998-8440, shea@hudce.harvard.edu
 - Linda Cross Director of PR and Media Relations for DCE, 617-998-8530, linda_cross@harvard.edu
 - Susan McGee Registrar of DCE, 617-495-5535, susan_mcgee@harvard.edu
 - Sarah Strickler Manager of Summer School Operations, 617-998-8462, sarah_strickler@harvard.edu
 - George Buckley - Assistant Director of Environmental Management Programs, and Barb Beaudoin, both Faculty Advisors for HEEC
 - Dara Olmstead and Gosia Sklodowska at OFS
 - Lessons learned:
 - DCE is very receptive to greening, but practically, financial payback and savings has to be the top priority, particularly with the budget freeze. Different measures also have to be evaluated for feasibility (e.g. composting may be too messy) and functionality (e.g. 51 Brattle does not use enough hot water to warrant a solar hot water heater).

- While new initiatives and ideas for HEEC are helping to expand and improve Club programming, practically, implementation and benefits may be gradual, such as with the Distance Ambassadors program. However, HEEC should continue to seek new directions and selectively pursue them as, once instituted, projects, such as the newsletter, can bring immensely beneficial new resources.

Looking ahead

- All of **DCE** will continue to investigate and evaluate new ways to save energy and be more efficient following the University's commitment to reduce GHG emissions by 30% over 10 years. Some efficient lighting and power plans, such as cycling fan coils according to valve percent to save energy, are in development. In terms of student engagement, HSS is planning a sustainable orientation with OFS that will include green tours and OFS REP speeches at proctor orientations. The impact of HES distance students also should be included and measured, particularly since students do not need to drive to campus, but equipment must run 24/7 for the program. CSA is also seeking to educate some of Harvard's youngest students about sustainability and will feature a community workshop on the subject over the summer.
- **HEEC** is currently researching an opportunity to have Harvard University take over the currently defunct Pi Epsilon National Honors Society (<http://www.piepsilon.org/>). The HEEC recognizes a need for a national honors society that serves the environmental science academic community and would like Harvard to leverage its position in academia to fulfill this. HEEC will continue to develop current programming and new initiatives. The Distance Ambassador program will continue to grow with the potential for more networking opportunities and sharing green jobs experience through a database. Other ideas include additional action events (currently there is only the Charles River clean-up), community outreach and service-oriented projects on- or off-campus. HEEC also has the potential to collaborate with HSS to carry term-time activities to the summer and involve HSS students in environmental projects.

4.4 Harvard Graduate School for Arts and Sciences

Student group overview

- While there are many environmental groups in GSAS, there is not a central green team that oversee the groups. Instead, GSAS falls under the FAS green team which has been extremely active over the past year.

- Three Green Teams within GSAS. Green Teams are small groups of staff, faculty and student members in a department, building, or office who work on projects to make their office more sustainable.
- Earth and Planetary Sciences (EPS) Green Team
<http://www.fas.harvard.edu/epsgreen/index.html>: the EPS Green Team was one of Harvard's first green teams and has been greening the EPS Department for years.
- Molecular and Cellular Biology (MCB) Green Team: the MCB Green Team was formed in 2008 with a focus on greening both labs and office practices.
- Organismic and Evolutionary Biology (OEB)/Herbaria/Biolabs Green Team: this team was formed in 2008. One of the first projects the group tackled was improving the recycling infrastructure in their buildings.
- Harvard Energy Journal Club (<http://www.hcs.harvard.edu/hejc/>, contact Kate Dennis, kdennis@fas.harvard.edu). This club meets weekly to discuss a technical article regarding the science, technology, or economics of energy. Its primary purpose is to develop better understanding of energy issues and policy.
- Harvard Energy and Environmental Club (contact Ernst van Nierop, nierop@seas.harvard.edu). This club is currently under formation, but aims to be an umbrella group for energy and environmental groups at Harvard.
- HCC representatives:
 - * Stephen Jensen, sjensen@fas.harvard.edu, G3
 - * Cassandra Freyschlag, cfreysch@fas.harvard.edu, G2

Actions for the year

- Overview of group actions undertaken during the year
 - Actions in the GSAS residence halls aimed for increasing awareness of the things that can be recycled since it historically has had some of the lowest recycling rates at Harvard. The most impactful activity was building recycling mobiles that could be hung above all the trash cans. By having signs as well as examples of all the things that could be recycled, many residents commented on their effectiveness.
 - Through programs like Shut the Sash, and Greener Benches, the laboratories have cut their energy use by approximately 30%, resulting in substantial cost savings and green house gas reduction. Work has begun in being better at recycling gas lecture bottles which currently are thrown away after a single use.
 - Working to establish buying practices with vendors that focus on sustainable and green practices is also a focus. Switches like this are extremely important for the school, and as laboratories make a lot of chemical purchases, this can have a dramatic effect.

- The Zuang lab in Mallinckrodt Chemical Laboratory became Harvards 20th LEED certified building. This is more than all the other Ivy League Schools combined.
- The SEAS Facilities office has been working on sustainability efforts such as efficient lighting, green cleaning products, automated energy management (Maxwell Dworkin), and eco-friendly renovations.
- SEAS community events have included successful free-cycles for office supplies and cutting down junk mail by calling and taking names off of mailing lists.
- SEAS is also proactive in highlighting energy and environmental research, which many labs are involved in.
- Important allies
 - Bob Burne, gsasfm@fas.harvard.edu: facilities manager of the residential halls, very environmentally aware and interested in keeping things green.
 - Margot Gill, (Administrative Dean, GSAS) and Garth McCavana (Dean for Student Affairs, GSAS) We had a very productive meeting last fall where both Deans were very excited about helping support our activities.

Looking ahead

- It is our desire to create a green team that will cover GSAS and SEAS. This has proved difficult because it has been hard to find a critical group of people to form this group with. Many students already involved in one group are hesitant to become involved in a higher order group because of time constraints. In the next year we will try to have several environmentally oriented activities that are widely advertised in order to draw students together who might be interested in forming such a group. We would be in close contact with our deans to accomplish such a task. The culture of GSAS, being quite delocalized to the department level, and likewise in SEAS amongst fields and even to different departments, makes communication and group-forming particularly difficult. There is a new dean in SEAS, Cherry Murray, and a primary goal for next year will be to establish a relationship with her and discuss her view of environmental and GHG issues, and how we can work together to advance mutual goals. Additionally, we want to establish better ties with the facilities managers across different buildings.
- Officers for next year: Stephen Jensen and Cassandra Freyschlag will both be here next year.

4.5 Harvard Graduate School of Design

Student group overview

- Group name: Green Design, founded Fall 2005
(<http://studentgroups.gsd.harvard.edu/greendesign/>)
- Group officers (HCC representatives starred):
 - *Julia Africa, MDES 2011, jafrica@gsd.harvard.edu
 - *Amy Linne, MLA 2011, alinne@gsd.harvard.edu
 - *Jon Sargent, MArch 2011, jsargent@gsd.harvard.edu
 - Ann Shi, MAUD 2011, ashi@gsd.harvard.edu
- Group mission statement: Founded in Fall 2005, Green Design offers a platform for the Graduate School of Design community to contribute in a meaningful way to the global “green” or sustainable design discourse using the methodologies practiced at the GSD. In recognition of our need to reinforce healthy and pleasant living and working habits, we encourage proper use, recycling, composting, and disposal of materials and food in GSD facilities. We host speakers, tours, exhibits, and events that address issues of interest to multiple disciplines and schools at Harvard. Our efforts are often coordinated with those of other Harvard environmental groups such as the Harvard Energy and Environment Network and the Harvard Climate Collaborative.

Actions for the year

- Overview of group actions undertaken during the year
 - Student groups at the GSD are primarily active in facilitating speakers or movies related to the interests of their members and, in keeping with this culture of engagement, Green Design has supported a number of presentations. These include Dr. John Todd, ecological visionary and creator of the Living Machine; Prof. Christian Werthann, an authority on Green Roofs and green infrastructure in non-formal cities; Holley Chant, Director of Sustainability at KEO International Consultants; Julie Campoli, 2009-10 Loeb Design Fellow; a brown bag lunch lecture with Rob Gogan, co-sponsored by the Green Team, on the logistics involved in Harvards composting and recycling efforts; a compost and recycling bin design charrette with Rob Gogan; and Prof. Richard Forman, who kindly introduced a film in which he is featured called *Division Street*. Green Design members have also played supporting roles in two spring conferences (‘Critical Ecologies’ and ‘Zofnass Sustainable Infrastructure Conference’). Green Design kept up the tradition of providing stainless steel travel mugs to all incoming students to promote responsible use of materials

in the student population. We have also taken an active interest in the GSD composting program, although student engagement has not been as robust as hoped. We are in frequent contact with the Green Team (made up of staff and facilities members who are concerned with environmental issues at the GSD), and work to improve compost signage and compliance.

- At the end of this year, Green Design worked with facilities to complete a waste audit. The audit took place on April 22nd, and was designed to provide the community with a benchmark for composting and recycling compliance. In this effort (and in many others throughout the year), Trevor O’Brien has been a steadfast ally, unflagging in his desire to address “green fatigue” among staff and students alike. Jo Marie MacDougall, the head of the ChauHaus, has also worked hard to find compostable service ware for the school, and has stayed in close communication with Green Design members. Laura Snowdon, Dean of Students, and Dean Moshen Mostafavi, Dean of the GSD, have expressed support for Green Designs work, although they have not been in frequent contact with the group. Dean Snowdon is working with Student Forum to create a “Green Liaison” position in student government, as per a recommendation from the Green House Gas Student Advisory Group Liaison Erin Kelly. Dean Mostafavi remains supportive of programs, events, and faculty searches that reinforce the schools commitment to sustainability.

- Lessons learned

- Among the student body, generating excitement about environmental issues and eliciting participation in “green” events is not easy. This stems in large part from the fact that students are extremely busy with coursework, but also from a relatively shallow engagement with sustainability as a professional or academic endeavor in the general student population. This may also be a reflection of the educational and professional biases in our students, as few GSD community members have strong scientific backgrounds and may privilege design composition and theory over a broader set of concerns. A notable exception to this is found among students in the MDes Sustainable Design and Landscape, Urbanism and Ecology concentrations, given that their curriculum (and fundamental orientation) demands rigorous engagement with these topics. Elsewhere within the different degree programs, pockets of students and professors engage with sustainable design but it is generally not a determining factor when evaluating the success of a students work. The challenge that we face lies in convincing our peers that sustainability is not merely an important behavioral principle, but also an interesting, productive, and non-prescriptive design challenge. Given the aversion that the word “green” can incite, due in part to the prevalence of green washing in the design industry at the moment, we have considered renaming the club.

- In some cases, reaching out to individual students has proven more effective than mass advertisement via poster or student announce (the GSD e-mail system). The small group of students we convinced to attend a waste management meeting (with only one responding to the mass e-mail) was vocal about how engaging the design charrette was. This suggests a disjuncture between perceptions of “recycling” and “composting,” the signage provided, and true potential engagement in the subject. Presenting the content of “green” topics in a way that tugs at the design strings of our student body (“material cycles”?, “complete design”?), rather than repeating old admonitions about not throwing out your coke cans, might make those topics more approachable and engaging. That being said, we have revamped our signage repeatedly, and have found that visual metaphors (rather than verbal lists) tend to attract attention from graphically-minded design students. Knowing your audience is more than half of the battle, and it seems that sleepless, cranky, critic-savaged design students do not like reading text.
- In the end, the most important avenues for reinforcing the importance of “green” design will have to come through coursework (via scholars and critics who emphasize the importance of responsible choices in materials and building performance) as well as via the job market after graduation. If students understand that these values are not a fad, and may in fact be critical to their value as a citizen of the profession, then the message might percolate more rapidly. Moving beyond a shallow engagement with “green” design is critical for reaching students who are not currently concerned with the impact of their work on climate change and environmental health.

Looking ahead

- Need for hard targets for semester (number of speakers, events, field trips)
- Establishment of legacy resources (materials or job-related databases for students)
- More collaboration with other student groups, particularly Land GSD
- Engage with student council and administration to add a green rep to student council as well as contribute to Orientation in fall 2010.
- Challenges
 - Lack of deep engagement and support from many faculty, especially via the curriculum and studio critiques
 - “Fad-oriented” culture in architecture makes it difficult for some members of the community to embrace green design or living principles as a lasting imperative
 - Resistance among students to volunteer by compost bins as waste stewards to increase waste sorting compliance
- Officers for next year not yet known

4.6 Harvard Kennedy School

Student group overview

- Group name: Harvard Kennedy School (KS) Energy Environment Professional Interest Council (EEPIC)
(<http://www.hks.harvard.edu/kssgorg/Environment/>)
- Group officers (HCC representatives starred):
 - Anna Berkowitz, Co-president, MPP 2010, anna_berkowitz@hks10.harvard.edu
 - Alex Zheng, Co-president, MPP 2010, alex_zheng@hks10.harvard.edu
 - *Allison Myers Crimmins, MPP 2010, allison_crimmins@hks10.harvard.edu
 - *Eric Uva, MPP 2011, eric_uva@hks11.harvard.edu
- Group mission statement: The Energy Environment Professional Interest Council (EEPIC) brings together students at the John F. Kennedy School of Government who are interested in environmental issues, particularly as they relate to public policy, advocacy, development, and business. EEPIC provides a forum for education, networking, and career services across the energy and environmental spectrum.
 - Education: EEPIC organizes presentations and seminars in which students, academics, and practitioners discuss their work on energy and environmental matters.
 - Networking: EEPIC fosters interaction between students with diverse backgrounds and interests, in part through extensive collaboration with other energy and environmental clubs in the Boston area.
 - Career Services: EEPIC works to connect students seeking careers in energy and environmental fields with potential employers in government, non-profit business, consulting, and other sectors.
- Group name: Kennedy School Climate Action (KSCA)
- Group officers:
 - Dominic Maxwell, Co-president, MPP 2011, dominic_maxwell@hks11.harvard.edu
 - Annika Brink, Co-president, MPP 2011, annika_brink@hks11.harvard.edu
- Group mission statement: The Kennedy School Climate Action group was formed in 2009 to address advocacy and action items regarding climate change issues in the Kennedy School and in the lives of students, faculty, and staff beyond the Kennedy

School. The KSCA aims to complement the education, networking, and career services overseen by EEPIC by providing a separate group that brings together students willing to take action in their school and communities to mitigate climate change. Specific goals include:

- Green pressure: Preparing and posing questions to visiting speakers and during forum events that bring the issue of climate change to the forefront of Kennedy School discussions
- Greening the school: Providing easier recycling, creating a roof garden, purchasing reusable mugs, and other efforts to ensure sustainable practices in everyday life at the Kennedy School
- Greening our fellow students: Reaching out to others to help green individual lifestyles

Actions for the year

- Overview of group actions undertaken during the year: EEPIC has continued to work with the HKS Green Team, the Harvard Energy and Environment Network (HEEN), and the Office for Sustainability to coordinate events that provide education and career opportunities to students interested in energy and environmental issues. The newly established Kennedy School Climate Action (KSCA) group has taken on the role of working with the HKS Green Team, student body government (Kennedy School Student Government or KSSG), and HKS administration to implement sustainable efforts and policies at the Kennedy School. Some of these efforts include:
 - The KSSG unanimously passed a motion on Environmental Sustainability at HKS calling for greater student involvement in HKS efforts to reduce greenhouse gas emissions and creating a new internal position known as a Green Representative. This Green Rep will liaise with the environmental groups at the Kennedy School and coordinate the creation of a Kennedy School Climate Action Plan. KSCA played a large role in developing the Green Rep Action Plan.
 - KSCA members conducted the first waste audit for the Kennedy School. The audit determined that 40% of the waste thrown away at HKS (by weight) could have been recycled and 25% could have been composted. KSCA has since begun a campaign to use this information to create better signage for recycling and waste receptacles.
 - KSCA volunteers installed Smart Strip power strips in the 124 Mt. Auburn office space, purchased and sold over 200 reusable coffee mugs, sponsored a waste free Earth Day quorum call (social event), and organized a (waste-free) Kennedy School “Bike Day” encouraging people to ride their bike to school by providing free breakfast and bike maintenance.

- EEPIC and KSSG members have held initial discussions regarding the possibility of increasing the sustainability content within HKS curriculum. More effort will be placed on including information on Harvard’s sustainability goals and HKS’s campus recycling policies at student orientation.

Looking ahead

- Initiation of KSCA, continued involvement of EEPIC representatives in campus initiatives (HCC, HEEN, OFS), and collaboration with the HKS Green Team, KSSG, and the HKS Community Garden Club has created a large network of students, faculty, staff, and non-Kennedy School associates working together to green HKS. These group efforts exponentially increased the number of people involved in sustainability issues and vastly expanded the magnitude, speed, and visibility of green changes taking place at HKS. With the creation of a Green Rep on the student body government and the development of a Kennedy School Climate Action Plan, it will be important for student groups moving forward to actively collaborate and communicate with the multiple groups and stakeholders.
- Officers for next year (EEPIC)
 - Carolyn McGourty, carolyn.mcgourty@hks11.harvard.edu
 - Jon Gensler, jon_gensler@hks11.harvard.edu

4.7 Harvard Medical School

Student group overview

- Group name: Students for Environmental Awareness in Medicine (SEAM)
- Group officers
 - Devan Darby, HMS 2013 Devan_Darby@hms.harvard.edu
 - David Bartels, HMS 2013 David_Bartels@hms.harvard.edu
 - Jana Jarolimova, HMS 2013 Jana_Jarolimova@hms.harvard.edu
 - Nicholas Abreu, HMS 2013 Nicholas_Abreu@hms.harvard.edu
 - Julian Thomas, HMS 2013 Julian_Thomas@hms.harvard.edu
- Group mission statement: Students for Environmental Awareness in Medicine was founded out of concern about escalating trends in environmental degradation and the absence of public discourse about the threat this degradation poses to human health.

Medical students and physicians are in a unique position to advocate for the environmental health of our patients and for the protection of our environment. SEAM aims to address these issues within and outside of the HMS/HSDM community.

Actions for the year

- Overview of group actions undertaken during the year
 - SEAM undertook a "Tosteson Medical Education Center (TMEC) Water Initiative" to increase awareness about the environmental impacts of bottled water and to promote access to alternative sources of drinking water in the TMEC. This initiative has spurred discussion amongst students and staff in the TMEC as well as action, namely the forthcoming installation of a filtered municipal water station on the second floor of the building. SEAM has also made strides to promote bicycle commuting. For example, SEAM has worked with HMS Facilities to install bike pumps in bicycle cages around the Longwood Medical Area. SEAM has also distributed bike maps pumps and maps of showers available on campus to make bike commuting more manageable.
 - To improve compliance with recycling, SEAM members started a pilot recycling program in Vanderbilt Hall titled "Go Green @ Vandy" which involved placing posters in the kitchens inviting residents to think about what they throw away or recycle.
- Spotlighted actions
 - SEAM has been actively promoting Harvard's commitment to sustainability by increasing awareness of and implementing solutions for environmental issues at Harvard Medical School. Some activities we wish to highlight include
 - * collaborating with facilities to provide alternatives to bottled drinking water in the TMEC
 - * installing bike pumps and bike repair equipment in select bicycle cages around the Longwood Medical Campus
 - * hosting a lunch-time lecture by Nobel laureate, Eric Chivian
- Important allies
 - Anne Hudson, Program Coordinator, Cannon Society
 - Peter Stroup, Facilities Director, Campus Operations
 - Robert Christiano, Associate Director, Campus Operations
- Lessons learned: SEAM continues to learn by making connections and forging partnerships with the Societies and the HMS Facilities Office. SEAM's biggest challenge is increasing visibility to the student body through student-focused events, as the majority

of our efforts have been project-based rather than educational and student-focused. To improve in this area, our leadership will pursue speakers for lecture series that appeal to student interests.

4.8 Harvard School of Public Health

Student group overview

- Group name: Environmental Health and Sustainability Club, founded in 2007
- Group officers (HCC representatives starred):
 - *Julia Roos, Co-President, 2010, jroos@hsph.harvard.edu
 - *Peter James, Co-President, 2012, pjames@hsph.harvard.edu
 - Andreas Neophytou, Treasurer, 2013, aneophyt@hsph.harvard.edu
 - Joel Cohen, Secretary, 2014, jocohen@hsph.harvard.edu
 - Alissa Weiss, Community Service Chair, 2012, aweiss@hsph.harvard.edu
 - Kathleen Attfield, Communications Chair, 2014, kattfiel@hsph.harvard.edu
- Group mission statement: The HSPH Environmental Health and Sustainability club has been established to provide the Harvard community with an open forum specifically to facilitate the discussion of Environmental Health and Sustainability issues. This includes debates, speakers, and panels on issues of the environment and approaches to sustainability. This includes the relationship between these topics and human health, the science behind these linkages, and policy, law, and economic instruments to help reduce/avoid potential damage caused by these issues. The discussions would also highlight the application of science and implications of these instruments in the occupational environment, environmental controversies, or other topics that the membership and officers deem pertinent to the membership.

Actions for the year

- Overview of group actions undertaken during the year: The Environmental Health and Sustainability Club began the year with a social event to recruit new members and to elect new leadership. Throughout the year, we have collaborated with faculty and staff to increase the awareness of issues of sustainability through promoting composting, putting on talks to highlight environmental issues, and working with other student groups to support sustainability and environmental initiatives around HSPH. We have

hosted speakers and aired films on environmental issues, such as *Food Inc.*, and *The River Runs Red*. Recently, we held a community service event for sustainable urban farming through The Food Project in Lincoln, MA, where volunteers got to get their hands dirty readying fields for the spring planting season. Finally, we have entered discussion with the Office for Student Affairs to incorporate environmental sustainability into next years orientation so that we can firmly establish the issue as a priority for incoming students.

- **Spotlighted actions**

- Showing of *Food, Inc.*, because food production has an impact on both health and the environment, EHSC showed *Food, Inc.* and invited Dr. David Ludwig from the Department of Nutrition at HSPH and HMS to lead a discussion about the film. Approximately 70 students and guests attended to watch the film and join in the conversation about how our food is produced and what it means for our health and our environment. The film was such a success that EHSC will hold similar events in the future, including the showing of *Crude* on April 20th.
- Orientation Planning: EHSC approached the Office of Student Affairs at HSPH in 2009 to suggest the inclusion of information about sustainability at HSPH and in Boston to future orientation planning. Currently EHSC and OSA are working together to include information in new student packets about living a more sustainable, energy-efficient lifestyle; include new information about composting and other HSPH sustainability initiatives in new student tours; and update the current Facilities and OFS discussion sections of the Deans Welcome talk to include additional information about sustainability efforts around the school.

- **Important allies**

- Claire Berezowitz, Office for Sustainability
- Jack Spengler, Professor in Environmental Health
- Danny Beaudoin, Director of Facilities,
- Laurie Torf, Director of Dining Services
- David Havelick, Staff, Department of Epidemiology
- Barbara Zuckerman, Staff, Department of Environmental Health
- Students for Environmental Awareness in Medicine (HMS Environmental Club)

Looking ahead

- EHSC will continue to work closely with the Office for Sustainability and Claire Berezowitz to develop programming and events throughout the year, as well as collaborate with Longwood-area and other Harvard environment and sustainability groups.

- Officers for next year
 - Peter James, pjames@hsph.harvard.edu
 - Andreas Neophytou, aneophyt@hsph.harvard.edu

Chapter 5

Conclusion

The second year of the HCC demonstrated the existence of shared sustainability concerns across the university, including energy use, water use, recycling and waste, orientation, green careers, curriculum, and sustainable dining. As shown in the individual school reports, students at Harvard are actively involved in advocating for and implementing sustainability initiatives, through creative partnership with key leaders in their school communities. The members of the Collaborative are students who understand Harvard's sustainability challenges and goals and are committed to providing student voices and actions to achieve quantifiable progress within the next academic year. The 2009-2010 HCC Annual Report provides a view into the diverse initiatives occurring at each school, and highlights three focused recommendations that were collectively chosen because of their relevance and scale - these recommendations are achievable in 2010-2011 with a concerted effort among students, faculty, staff, and administration. The University-wide nature of the GHG reduction commitment demands continuity of collaboration and accountability among all groups at Harvard. Accounting for lessons learned in its first two years, HCC should continue to develop creative and effective ways to facilitate student participation in this collaborative agenda.

