

SUSTAINABILITY INITIATIVE

UNIVERSITY OF MASSACHUSETTS DARTMOUTH



NEWSLETTER

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INTRODUCTION

Each month we try and bring interesting stories to life from around campus and our area regarding sustainability. This month catches us up on some of the summer research projects funded by the Green Fee, reviews a project from last spring break in Panama and introduces the climate talks starting in Paris. While we are publishing this issue, the University's Resiliency Summit took place, which expands our efforts from reducing our own contributions to greenhouse gas emissions while ALSO preparing for the fact that our climate is already changing. We look forward to our next issue to provide a recap of both of those events!

Jamie Jacquart, Assistant Director for Campus Sustainability and Residential Initiatives

CLIMATE-CHANGE CONFERENCE IN PARIS NEEDS TO BE MORE AMBITIOUS

As this Sustainability Initiative newsletter is unveiled, the 2015 United Nations Climate Change Conference will be underway in Paris from November 30 to December 11. This conference is the 21st yearly session of the Conference of the Parties to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 11th session of the Meeting of the Parties to the 1997 Kyoto Protocol. The conference has two objectives: (1) achieve a legally binding and universal agreement on climate from all the nations of the world, and (2) institute concrete steps so that future generations have a chance to live in a world that is not overcome with heat waves, droughts, floods, and other ravages of climate change

Three goals to consider:

- Subsidies must be removed
- Fossil fuels taxed (or subjected to permit trade)
- All countries need to agree on the details in a way that is "fair"

Four Challenges:

- Transition to 100 percent renewable energy by 2040
- Keep 80 percent of fossil fuels in the ground
- Initiate a reliable and common protocol for each country to monitor, report, and verify their progress
- Negotiate a sense of true fairness for poorer countries that have contributed little to climate change

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An agreement cobbled together in Paris will not block climate change, but an agreement will send a signal to corporations and investors that we are not in a world of business-as-usual anymore.

Eileen Marum

New2U

This past summer, Thi Le, a sophomore bioengineering major, helped the Office of Campus Sustainability and Residential Initiatives launch a program called **New2U**. The program is dedicated to reusing, restoring, and re-wearing items donated by UMD students. All items are gently used and were redistributed back into the community via a yard sale. Items not sold were donated to Gifts to Give in New Bedford by the Green Navigators. “I will continue to search for new projects and opportunities with other campus organizations to increase the UMD’s level of sustainability within our community,” Thi said.

Huge Recycling Effort

Joshua Yerka has been associated with the Sustainability Office for about four years and was recently promoted



from general worker to a vital core staff position in charge of all recycling activities on campus. Staff duties and responsibilities include preparing schedules for Green Navigators in all campus

buildings and ensuring that jobs are performed and finished without delay. Congratulations Joshua! Recently, the Sustainability Office has been involved with the assembly and distribution of new and larger recycling and trash bins around campus.

Slash the Trash Initiative

The Office of Campus Sustainability has been working actively with NORESKO to inform the UMass Dartmouth community on various ways to be friendlier toward the environment through an initiative of cleverly-

named campaign slogans: “Slash the Trash,” a move to increase the amount of recycling. When doing laundry the “Be Bold, Go Cold,” campaign was plugged since



cold water washes clothes as effectively as warm water. “To spread the word, signs were posted conspicuously in the laundry room of each residential

building,” Robert Ruth said.

In our “Reduce the Juice” campaign, Green Navigators encouraged everyone to unplug non-essential electronics. Other energy-saving methods included distributing hundreds of LED light bulbs to students to replace their traditional bulbs. The LEDs provide the same amount of light and at a substantial savings to the environment. The final core campaign was called “Limit Your Minutes.” In this venture, students were encouraged to save water by spending five minutes or less in the shower; a recommended method to accomplish this feat is by listening to or singing two or three songs.

Green Navigators are dedicated to promoting sustainable efforts across campus; we anticipate that everyone will pitch in as events and bins can only go so far. “By establishing environmentally friendly habits on campus, we can create a routine of continued conservation across multiple mediums,” Robert said.

Campus Sustainability Day and Tabling

Increasing awareness and knowledge about sustainability is an incredibly important aspect of the Office of Campus Sustainability and Residential Initiatives. Green Navigators assist in events that help raise awareness, for example, tabling during open houses

for prospective students, during Campus Sustainability Day and collecting recyclable clothing and electronics for America Recycles Day. “We are very proud of our off-campus volunteer work at the Connecting for Change conference in New Bedford and tabling at the New Bedford Credit Union to raise public awareness of sustainability issues,” Malintha Fernando said. Future events will serve as a gateway to enhance and create a more sustainable environment and viable planet.

Better Recycling and Composting

Recycling and composting are cost-effective and efficient ways to fight climate change and provide other social and environmental benefits, according to Olaitan Tayo, a senior Business Management Organizational Leadership major. Olaitan is currently the Waste Audit Project Coordinator, and he coordinates dumpster audits around campus and assesses the contents and places them into categories. The four categories are: 1. cardboard, 2. cans, plastic and paper, 3. food, and 4. trash. The weight of each category per audit is summed.

Recycling and composting are cost-effective and efficient ways to fight climate change and provide other social and environmental benefits—

Olaitan Tayo

Last year nearly \$180,000 was saved by disposing of our garbage properly, since nearly 34 percent of dumpster content was garbage. With better recycling and increased

composting, the number of costly truck runs to empty dumpsters could be decreased significantly. The goal is to reach zero waste by 2020. “We plan to reach that goal by educating the community and starting initiatives,” Olaitan said. The habit of recycling encourages people to consider their personal impact on the environment, and it makes people feel good about their contributions to a cleaner and healthier environment.

A Place at the Table: Raising Awareness of Hunger in the SouthCoast

The UMass Dartmouth Hunger Initiative is a multifaceted project that focuses on creative ways to relieve hunger through education around food insecurity



and providing emergency assistance to students in need. Students Helping Students is our ‘on campus pantry’ located in the Dell West hall community center. Gabrielle Monteiro works with the Senior Resident Assistant, the Resident Director of Dell West and the

Endeavor Scholar organizing food drives and promoting the food pantry. “We have a food pantry site at the Dartmouth Bible Church that was created in collaboration with the Leduc Center for Civic Engagement,” Gabrielle said.

UMD Grows is a community permaculture garden, a system of agricultural and social design principles centered on simulating or directly utilizing the patterns and features observed in natural ecosystems. The garden is a living laboratory and outdoor classroom where students and community members learn traditional growing techniques through volunteerism.

Gabrielle works closely with a Permaculture Consultant and UMass

Amherst Alumni staging informational workshops on cooking, nutrition and creating



sustainable food systems. They have successfully integrated this project into numerous courses within the Sociology/Anthropology and Sustainability Department. She ensures people are kept up-to-date with ongoing projects within the organization, and focuses on student body recruitment and education both in the classroom and in the Housing and Residential Education Department.

Engineers Without Borders

Four UMass Dartmouth students, Zachary Aaronson, class of '16 of Dartmouth, Casey Snook '16 of Merrimac, Christopher Griffin '16 of Whitman, and Johnnie Gomez '17 of Springfield, traveled to Valle las Perlas in Panama this past summer on a mission centered on land surveying, water testing, meeting with villagers, as well as, the Panamanian Ministry of Health. The students are members of the UMass Dartmouth Engineering Without Borders Chapter whose chapter focuses on sustainable engineering projects aimed at bringing basic human needs to communities around the world.

The goal of this past summer's trip was ensuring the system of fittings, valves and couplings connected to water tanks constructed in the summer of 2014 were operating correctly. The students learned that a water tax they helped establish last year supported the maintenance of the water distribution system and the long-term success of the project.

Land surveying was vital to ensuring that water flowed through pipes at the appropriate pressure. "Water quality involved testing pH levels, turbidity, and E. coli counts," Johnnie Gomez said. The funding for monitoring water quality was provided by UMass Dartmouth's College Now program.

Students spoke with the Panamanian province's Ministry of Health regarding the project's present and future needs, for example, increasing in-home connections to clean water supplies.

The group's project mentors accompanied the students. They were Environmental Engineer Gemma Kite, Horsley Witten Group, headquartered in Cape Cod, and UMass Dartmouth alumna Jacqueline Buenrostro '14, who is fluent in Spanish, assisted students communicate with the villagers.

Green Fee: Summer Research Programs

In the spring of 2015 the Green Fee approved several summer research projects. The intention was to support student-led research in a sustainable field that would

benefit the university. Here are the projects which were funded:

iGEM Research

iGEM (International Genetically Engineered Machine) is a competition where the best and brightest from around the globe exhibit their synthetic biology prowess and compete for fame, glory, and little plastic trophies! The UMass-Dartmouth iGEM team propels the University into the international arena with their research on the subject of "Novel inhibition of *Helicobacter pylori* through peptide assisted urease suppression".

The UMass Dartmouth iGEM team had two advisors, Jacob Palmer and Prof. Christopher Brigham, was captained by Evan Campbell, and was comprised of Lindsey Ly, Zachary Kroll, Brandon Phillips, Dean Robert, and Maraquia Atwood. This group shows how effective interdisciplinary collaboration can be. The team is predominantly from the Bioengineering Department and is appreciative of their members from the Biology and Mechanical Engineering Departments, and for the financial support from the Green Fee Committee and Bioengineering Department. Students utilized the brand new laboratory facilities completed earlier this year.

Alternative Fuel Vehicles

The University currently has a large number of vehicles to keep the facilities and operations working smoothly: fork lifts, cars, light duty trucks and one hybrid vehicle. This project sought to identify current vehicles in use, determine their costs of operation for fuel, oil changes and general maintenance and analyze their greenhouse gas emissions. The project included available state incentives to switch over to either hybrid vehicles or alternative fuels like liquid propane, hydrogen, electricity or bio-fuels.

As a result of this research, UMD has a much greater information database regarding the true cost of existing fleet of vehicles and the transition costs or savings available in switching to new fuel-efficient vehicles. The Facilities Operations group is seriously considering an all-electric fleet for the grounds crew.