



Campus Verde

Report 2016

This report includes the activities by the Campus Verde Initiative, which is constituted mainly by students guided by faculty and personnel from UPRM, but also includes several collaborations with members of the community.

Presented by Dr. Sandra Cruz-Pol & Prof. Carmen Castañeyra
Campus Verde Director & Co Director
June 2016

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Campus Verde (CV or in English “Green Campus”) is an initiative founded in the fall of 2007 at University of Puerto Rico – Mayagüez Campus. It’s coordinated by Dr. Sandra Cruz-Pol with participation from students, faculty and campus personnel who strive to raise awareness of the prevailing importance of living in harmony with the planet, in order to reduce our impact to the ecosystem and reduce global warming emission and climate change.

CV coordinates activities and efforts directed toward education and the implementation of projects in eco-friendly and sustainable issues. We work with collaboration with various student organizations, campus departments and offices, and off-campus community organizations and offices. (Campus Verde also has its own student organization called Campus Verde Students). We provide annual training to dozens of students/faculty, so they can continue to offer lectures and workshops to the community both here or wherever they go to work. Thus we reach thousands of people annually all over the island and beyond, including people from Colombia, Argentina, Hawaii, E.U. and Mexico who have indicated that we use our resources downloadable freely from our web.

Examples of our education and outreach activities are annual Symposia with experts from multiple disciplines such as **renewable energy, organic farming, biofuels, remote sensing of the atmosphere, e-waste, green transportation, political aspects of climate change, green architecture, green economics, hydroponics, vegetarian food, ecological insecticides**, among others. In addition we organize information booths at fairs, climate change forums, eco-films, eco-fair, educational campaigns, and exhibitions during Earth Week in the EcoSolar House. We use online surveys, and pre/post-tests to assess impact of our activities. We also provide presentations to schools and conventions all over the island, reaching over 5,000 people per year through conferences and visits. We also maintain very active publications on Social Medias as CampusVerdeColegial and CampusVerdeUPRM in Facebook, SnapChat and Twitter. See more information and photos in our annuals reports. (2007-2016) <http://campusverde.uprm.edu/>

We have organized activities in collaboration with other students Association such as tree planting, beach cleanups, eco-eating fairs, recycling day, waterfalls cleanups, and bicycle marathons, exhibitions with friendly products, among others.

In terms of implementation, we meet regularly with the Campus Administration to introduce eco-friendly alternative in transportation, energy conservation and efficiency measures, etc. which result in substantial cost savings and lower emissions of greenhouse gases and toxic to the environment. In terms of prevention, we have an eco- health and numerous activities to raise awareness about the positive impact of a healthy diet, not smoking, use of bicycles, use of ecofriendly cleaning products and personal care products,

and how all also benefits the planet. We develop and provide free materials online in our main web page such as posters, fact sheets and presentations.

I. Mission Statement

Campus Verde strives to integrate environmental knowledge into all relevant disciplines; improve environmental studies course offerings as *“Sostenibilidad Ambiental”* (18hrs) by DECEP at UPRM; provide opportunities for students to study campus and local environmental problems; conduct environmental audits of its practices; promote environmentally responsible purchasing policies; reduce campus waste; maximize energy efficiency; make environmental sustainability a top priority in land-use, transportation, and building planning; establish a student environmental center; and support students who seek environmentally responsible careers.

II. Campus Verde Structure

Locate at Sánchez Hidalgo Building, office SH-106. Campus Verde structure include the Green Team compose by professors and no docent employers. And a collaboration with a Grant writing team, Eco Solar House Project Committee of students and professors and the Tree Committee where its main mission is to protect campus green areas. The Green Adventures Leaders, coordinate activities like kayaking, surfing and beach cleanups, among others. We collaborate with the Recycling office at Edificio B. The student Associations groups are Ride a Bike, UNICEF, Campus Verde Students (CVS) and Green Buildings and Sustainability (GBS) UPRMGroup.

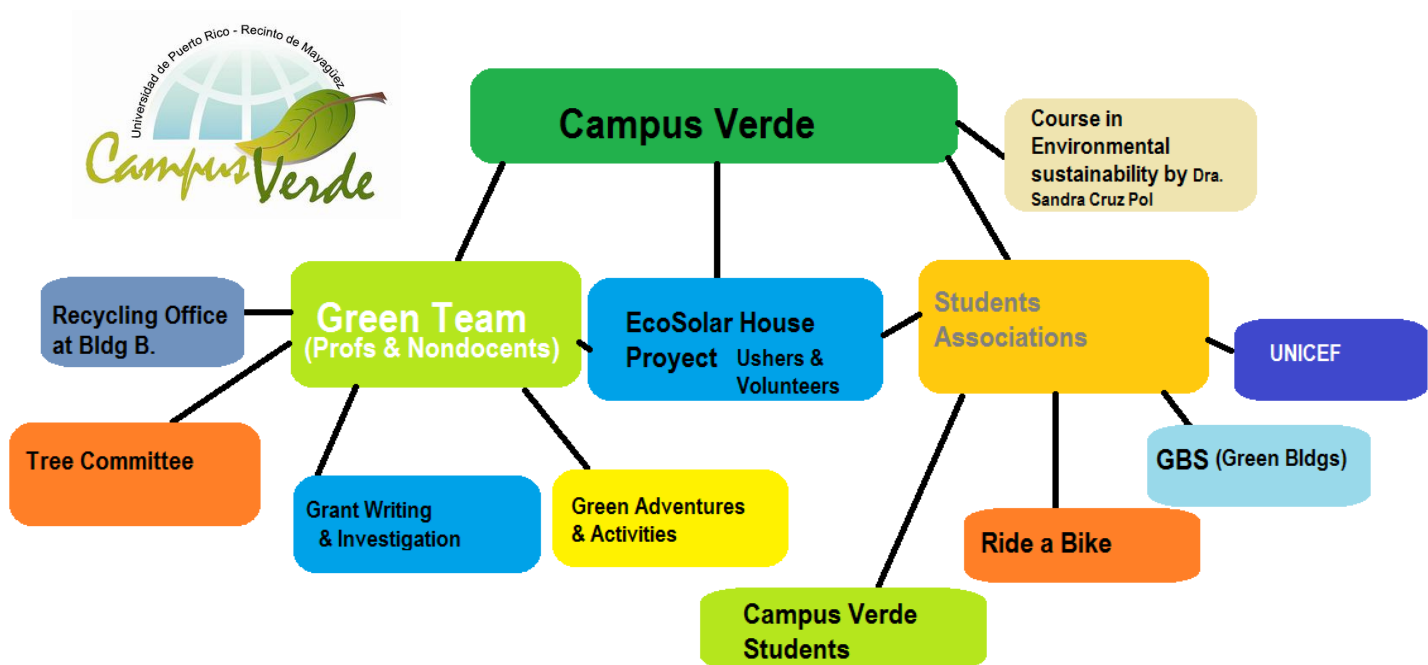


Fig. 1. Campus Verde structure: Green team is composed of UPRM personnel while Students Groups is composed mainly by students with personnel/faculty advisors.

III. Green Adventures

During this academic year, Campus Verde continued to grow thanks the Committees and the Green Team as Dr. Sandra Cruz Pol, Director, Prof. Carmen Castañeyra as Co-Director of CV, Dr. José Colom Ustáriz as coordinator of projects in the Eco Solar house, Jorge Bencosme as green leader and Counselor, Yamitza Gaztambide as Administrative Assistant and collaborator in the main Web page design. Everyone bring many ideas to the program and collaboration in the projects and activities. We are also very grateful to the support of Efraín Morales, from the UPRM Computer Information Technology (CTI) of the administration of the page of Eventos Verde- UPRM.

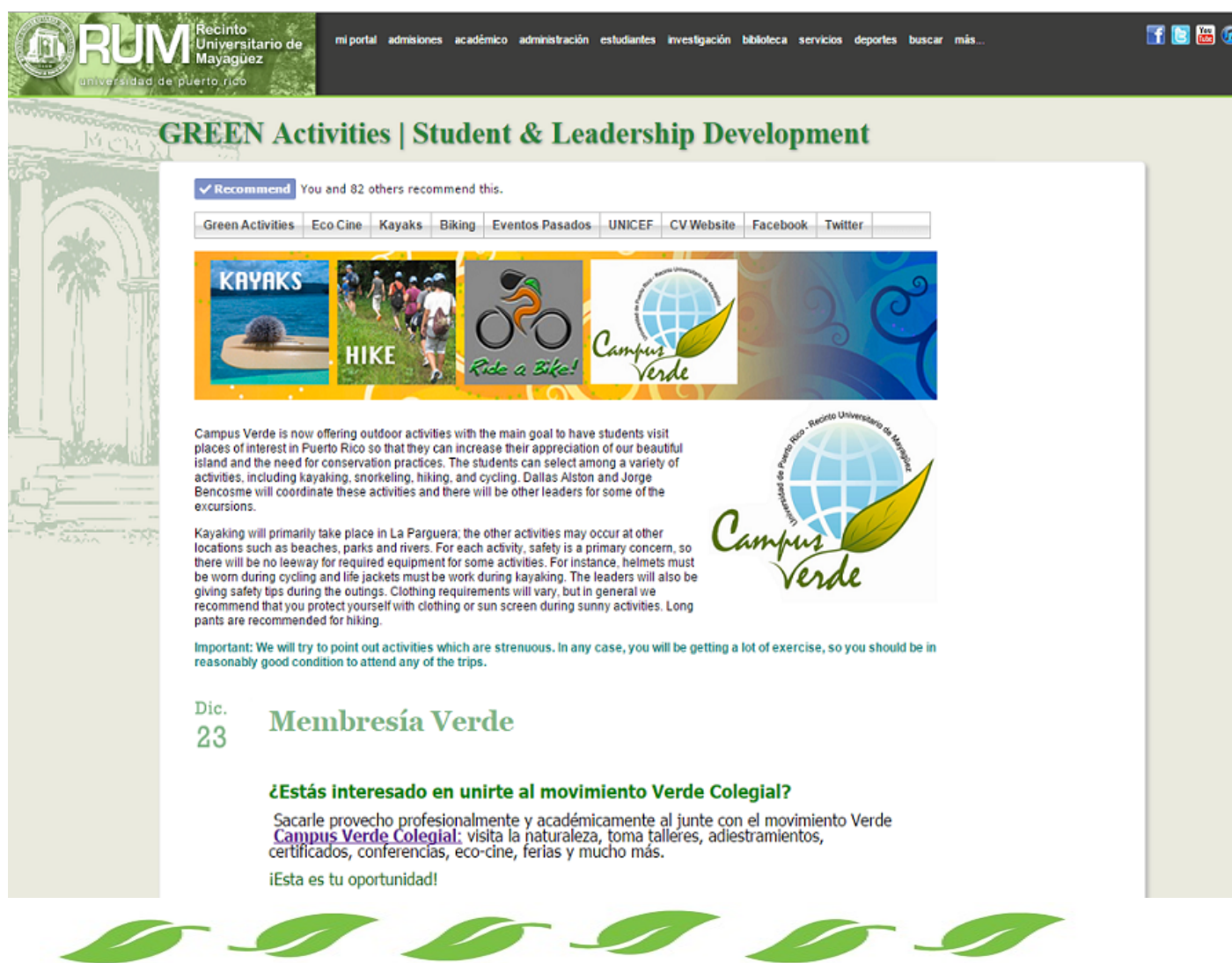


Fig. 2. The Green Adventures webpage designed by Efraín Morales, can be found by clicking *Próximos Eventos* on Campus Verde web (<http://campusverde.uprm.edu>), or directly at <http://www.uprm.edu/eventosverdes>. This is where students register to all sort of eco-events.

We have recruited many people to serve as leaders of these green trips whose main purpose is to give the student body and the community an opportunity to appreciate nature. Most activities on this page are free but some have for a modest (no reimbursable) donation which go directly to CV account and serve to pay for new equipment or replacement of lost or old equipment, materials, snacks for some activities and the like.

So thank you all for your donations!

Green Nature Adventure Leaders:

Kayaking	Cycling	Surfing	Clean Ups and Recycling
Rolf-Martin Vieten Jashira Torres Héctor Quiñones Miguel Figuerola Joel Mercado Steve Tamar	Jorge Bencosme	Miguel Canals Ramse Morales	Prof. Carmen Castañeyra, Dr. Sandra Cruz Pol, Luz Celeste Guzmán Eduardo Julian Irizarry Angel Falú



Fig. 3 Leaders for the several types of new Green Adventure trips offered by Campus Verde through our new web *Eventos Verdes*.



IV. Green Team

The Green Team with expertise in several areas related to sustainability, including UPRM personnel and faculty with expertise in **renewable energy, organic agriculture, etymology and organic pesticides, green chemistry, climate change outreach, organic apiculture, biodiversity, and sustainable construction, among others**. A very prestigious green architect joined the Green Team as collaborator from outside UPRM, Dr. Fernando Abruña, who was previously president and founder of (*US Green Building Council*) USGBC Caribbean Chapter and professor at UPR-RP. He collaborated on the integration of ecofriendly and architectural ideas in order to present the **Solar Eco House** as a sustainable housing type

Our intention with the Green Team below, is to leverage with talent from human resources already found within UPRM by asking each Green Team member to organize 1 or 2 activities per year within their field that can benefit our academic community and even our general community. Our Green Team is presented in the

Next figure. Can be found at: <http://campusverde.uprm.edu/contact.html>.



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Fig. 4. Collage of new Green Team members constituted mostly by UPRM personnel with expertise in areas related to sustainability. We also have our collaborators from outside of UPRM, Dr. Fernando Abruña, previous president of (US Green Building Council) USGBC Caribbean Chapter and Sadhu Govardhan, from www.organicfarm.net. Contact us at: campusverde@uprm.edu

V. Eco Solar House:

Eco-Solar House serves as a platform for research and education to develop new ideas and an opportunity to the community to learn how to live in harmony with our planet. EcoSolar House is a project, which serves as a research laboratory for teachers and students in areas focused on sustainable technology. This housing showcase provides experiences about sustainability, environment, green technologies and conservation practices for academic and general community. These skills apply sustainable technology in the home, with the photovoltaic system, water collection systems, green building materials and practical training with workshops and training with ecological foundations.



The ecological remodeling of the House

Transforms it into a model of sustainable housing.

The term is used to describe ecological ideas and initiatives that educate on how to responsibly manage the planet's resources, so that persist for future generations.

- ☐ Paint **Master Paint Eco Pure** without V.O.C emissions.
- ☐ Special treatment reflective in ceiling to lower the internal temperature of the house.
- ☐ Natural material as **linoleum floor**, instead of vinyl.
- ☐ LED lights - Low consumption.
- ☐ Photovoltaic Solar System.
- ☐ Landscape edible organic garden.
- ☐ Aquaponics system.
- ☐ Apparatus to minimize water consumption at home.
- ☐ System collected rainwater to water the plants.
- ☐ Library of sustainable material.
- ☐ Workshops for eco-friendly cleaning products and insecticides with essential oils.
- ☐ Workshops in Ecological Kitchen & vegetarian recipes.



The Solar House was built in 2005 as part of the Solar Decathlon competition in Washington D.C. In 2008, it was inherited by Green Campus in order to restore it to make it a model of sustainable housing and an interactive museum. Beginning in the year 2015 was completed with Phase 1. The reconstruction served as a laboratory where students and teachers from various disciplines worked hand in hand in the ongoing development, both education and research. The practical knowledge acquired includes installation of solar panels, system collected rainwater, green building materials, and practical training in sustainability.

Construction stages: from 2008-2015

- ☐ Iron Armor, reinforced and nailed to the ground.
- ☐ New and treated Wood, to prevent termites. The land was tried before installing wood with cedar oil and Borax.
- ☐ Ramp for disabled, entrance and terrace wood treated with eco-friendly paint.

Inauguration of the Eco Solar House, by **Dr. Jane Goodall**.

We worked for almost 2 years to bring Dr. Goodall to UPRM, a renowned British, PhD in entomology, defender of the environment and animals. In March 2015, after its presentation before more than 3,000 people, organized by Campus Green UPRM, we received her in our eco solar house and she help us plant a plantain tree next to it as a part of the inauguration ceremony.



The first phase of the EcoSolar House open, located on the grounds of CID was finally completed. The day



of inauguration, Dr. Jane Goodall visited the UPRM to offer a conference after his talk "***We Can't Wait for Environmental Education***" and moved to the ***EcoSolar House*** where she planted a banana plant as a symbol of its opening. Dr. Jane Goodall accompanied by the Rector Dr. John Fernandez Van Cleve and Dr. Sandra Cruz Pol, founder of Green College Campus.

Fig. 5 Palace of Sports and Recreation at Mayagüez, presentation of Dr. Jane Goodall with over 3,000 people and online viewers



❑ New Projects:

- The new projects in the home are the ecological garden of edible plants and vegetables and organic gardening. Most plants were donated by the Alzamora Farm UPRM, and by the contribution of students and staff.

The first workshop offered was How to Plant an **Organic Garden**, which was brought to UPRM by the **Roots and Shoots Program** of the **Jane Goodall Institute**. We thanks **Nelly & Rick Asselta** for offering the workshop to more than 30 interested persons including children, staff, students and seniors. All went very pleased with

the great quantity of things learned. After the workshop the group of volunteers have monthly household work performed maintenance and conservation garden in raised beds made and the ecofriendly garden.



- **Rainwater Collection Project** to irrigate plants organic gardening, using cistern water and rain collection system. The soap used in the washing machine is environmentally friendly. This project was carried out at the EcoSolar House thanks to the proposal made by Dr. Jose Colom Ustáriz to the *University of Syracuse*, under a Grant submitted to **Green PR** providing a **MINI GRANT of \$5,000**.





Fig. 6. Mini Grant students and volunteers working on the project.

- **Organic Gardening workshop**, lectures on **Ecological Insecticides**, free of harmful chemicals for the environment, performed by Dr. Hipolito O'Farrill in entomology.



workshops of **Eco Kitchen**, making up recipes

wholegrain and local produce, where people learned to make the recipes and the reasons why they are using these products and benefits to health and the environment.

○ And made with organic,



❑ New Exhibits:

- **Light bulb Exhibits-** This is a new lighting project, where the consumption of three different types of light bulbs is presented. This project was developed by undergraduate students Angel Rodriguez Ortolaza, Jan Ortega and Kevin Rivera. Sponsored by Green Campus.

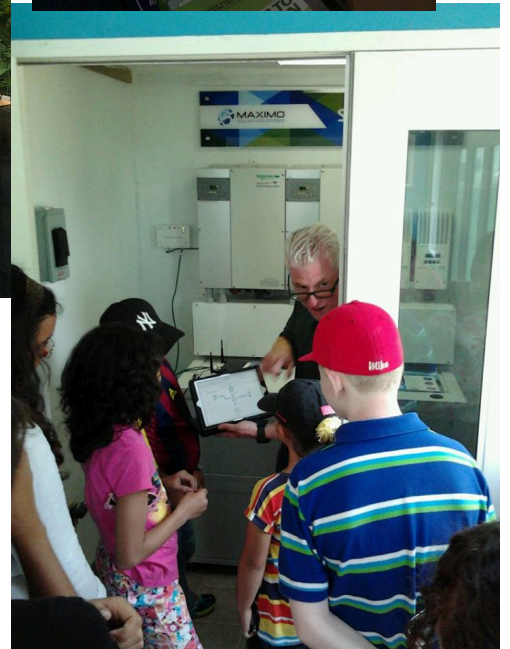


- **Hydroponic** - New gardening project made with Bamboo by Susan Caraballo, an undergraduate student of the Biology Department with the collaboration of staff Finca Alzamora- UPRM. Sponsored by Campus Green.



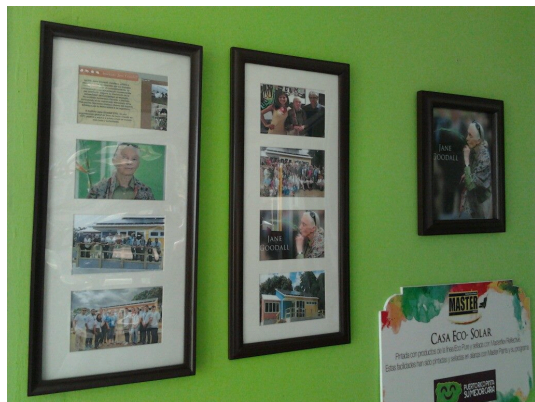
❑ Solar system and installation

were donated by **Maximo Solar Industries**: descriptions of material – *Deka Solar Batteries AGM 8a27 DT (12), Charge controllers Xantrex MPPT 60/150 (2), Inverter Xantrex XW 4548*



(2), Solar Max Battery Cabinets GSPR1 (3), Structure for 39 panels (1) (Total: \$22,000).

- ❑ Eco-friendly paint from **Master Paints**, was donated by Mr. Miguel Vergara, manager of this company located in Guayanilla, PR. (Total in materials \$1,200) to the **Solar Eco House ecofriendly paints** with



zero VOC (Volatile Organic Compounds) Green Seal and reflective treatment for the roof of the house. This paint helps avoid hazards to human health (asthma, allergies, etc.) due to the absence of harmful gases (V.O.C.) and environment pollution. In the terrain under the EcoSolar House, a treatment of cedar oil was applied to ward off termites. In addition Borax was applied, except areas that are intended for later use for orchards. These are ingredients that naturally

repel insects that can damage the wooden house.

- ❑ **General Electric, Abbot, Windmar PV and Boeing** thanks to donations made by these companies and for the help received from the University of Puerto Rico, Mayagüez Campus the EcoSolar House today completed Phase 1 of the project. We have had the support of the Technical Team lead by Luis Karry from the Engineering Dean, with the lead by the Associate Dean Dr. William Hernandez. The UPRM architect has devoted his time to design modifications to the EcoSolar House so that it has a handicap ramp around the balcony and terrace. We have met several times with all of them and with the Administration Dean at the Chancellors Office and with the office of OIIP, including Eng. Nancy Mendez. Coordination and collaboration of Dr. Erick Aponte-Bezares INGE Electric UPRM and Dr. José Colom-Ustáriz as director of the project from Electrical Engineering, UPRM. We are grateful to all of them for their support. Visiting hours will be posted soon.



The newest plan can be found at

http://campusverde.uprm.edu/solarEcoCasacambio4-18-13-2-Plano_Model.pdf

Photos at: https://photos.google.com/u/1/album/AF1QipPwJJUR6piSBIOEGGrTFFMUNIYP86ZoDmO_V2aF

The house was completed through the efforts of the Personal:

Dr. Sandra Cruz-Pol, Dr. José Colom Ustáriz, Dr. Erick Aponte, Department of Electric Engineering, Prof. Carmen Castañeyra as Co-Director of Campus Verde.

Contributors:

Engineering Workshop, Student volunteers, Student Associations Campus Green and Green Buildings and Sustainability, Dean of Engineering, Ellen Acarón the Department. Buildings and Grounds and Dr. Fernando Abruña.



Fig. 7: Committee of Green leader students as Ushers at the Eco Solar House – Open House (April22/2016)

Fig. 8: These photos show the state of the old solar decathlon house by the beginning of 2012 (left), the state as of June 2012 (center) and the present state as of June 2015 (bottom). Thanks to the sponsors.

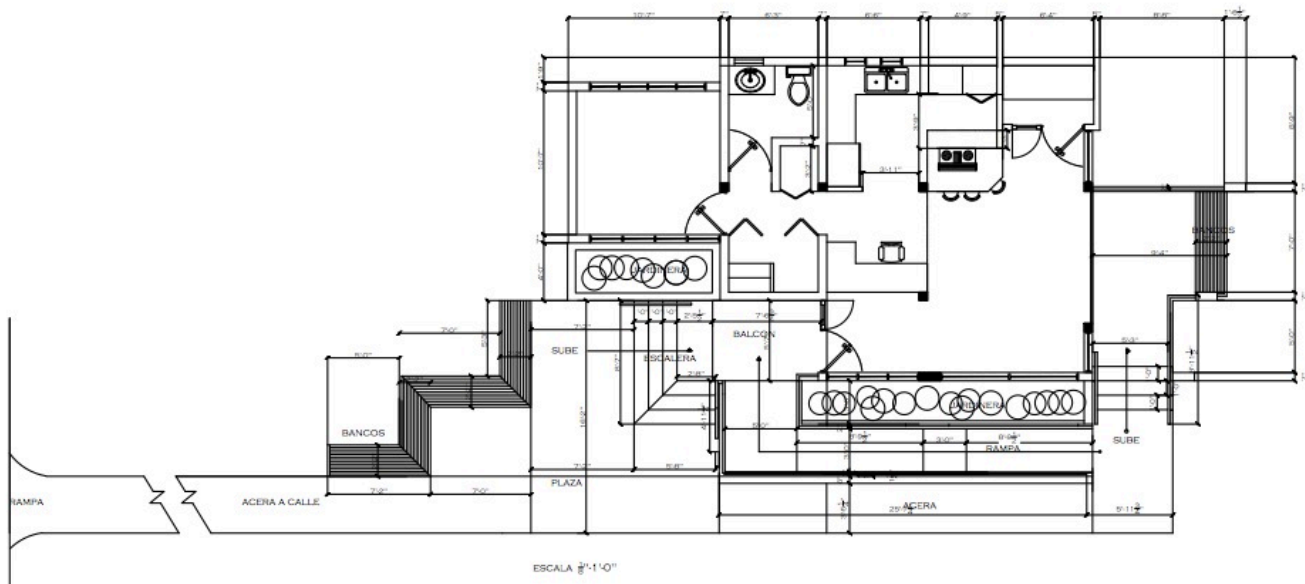


Fig. 9. New layout with handicap ramp and balcony.

We are submitting proposals to the government of Puerto Rico and to several private corporations to support this new sustainability showcase. A Copy of the proposal can be found online at:

http://campusverde.uprm.edu/Proposal-GreenCampus_UPRM_Eco_House.pdf

A. Submitted Proposals:

1. **"INFEWS: T3: Culebra Urban Resilience for Food, Energy and Water- CURFEW"**, Submitted in Mar2016, NSF, \$2,998,151/3yr.
2. **"EPA PP: Eco Sustainability Training and Awareness Rewards (EcoSTARS)"**, \$182k/3yr, EPA Pollution Prevention Program.
3. **"Water Conservation, Energy Efficiency and Stormwater Pollution Prevention Assessment on Food Services Establishments, Beauty Salons, and Automobile Maintenance and Repair Shops"**, \$283,709/3yr, EPA Pollution Prevention
4. **"Latina SciGirls"** EcoChicas! Mini-Summer Camp for girls, NSF \$6k/2yrs, Feb 2016, Aprobado
5. **"Kayak Green Adventures"**, Ford Becas Ambientales, \$5k, May 2016
6. **"Museum Exhibits Casa EcoSolar"**, Ford Becas Ambientales, \$2k, May 2016
7. **"Electric Solar Golf Car"**, Ford Becas Ambientales, \$3k, May 2016
8. **"Education and workshops in Composta"**, Ford Becas Ambientales, \$2K, May16

VI. Tree Committee & Reforestación Colegial

Since early in year 2013, the experts in topics related to tree interference in a Tree Policy for the first time in 100 years since the foundation of the institution. This policy is being reviewed by

the administration since that year. The idea is that the committee be consulted before the cutting of any tree within the campus. During the last year we have not trees protection projects as it has established a preservation order considering the trees as an important source for nature. There have been several cuts of sick trees that have been noted.



Reforestación Colegial is a reforestation initiative created by college students of Mayaguez campus, Efrain Rodriguez Ocasio & Abdiel I. Valentín Feliciano Co-founders, President & Vice President; plans to establish planting inside and outside the campus was formed. The university administration will coordinate with the student associations in regular planting trees and palms in proper places. For this reason, the members of the academic community wishing to plant trees or palms must request permission from the Director of Fields and Roads Department and receive prior to planting. They have made 2 reforestation activities under this initiative, the most recent was held on April 23, 2016. Making an internal planting on the premises. He had previously made a planting saplings more than 3,000 in the Nature Reserve of Vida Silvestre of Cabo Rojo to create an ecosystem for safeguarding thousands of endemic birds and other types of animals. Conserving and preserving them visit occurred on several occasions to see the status of the saplings growing and giving maintenance.



VII. Eco Cine: More Leveraging

Campus Verde has previously offered many documental movies with topics related to sustainability, social and environmental well-being. All the movies are announced through our *Eventos Verdes* webpage.

Eco Cine:

- Dirt, The movie*
- The Dark Side of Chocolate (UNICEF)*
- Origins (GE)*
- Unacceptable Levels (GE)*
- Cowspiracy*
- Gasland*



-Tapped
-Wall-E (GE)



We have selected the series from films which will provide you with information for living harmoniously with the planet. However, we cannot control the content of all of the films and we are not trying to be activists; rather we

think that you can be part of the solution with everyone becoming aware of the present and planning for the future. Thus, we would want to work within the political system to educate, not alienate. We can make a difference with one individual, within one home, within one community; it does make a difference. Let's try to make the as many drastic changes during the next 100 years as we made during the last 100 years, but in a more rational and sustainable mode. We have the support of the **Government Ethics (GE)** office to validate hours in ethics and environmental education which gives employees and faculty contact hours for the benefit and development in ethical environmental materials.

Fig. 10 New list of movies that have offered and will be shown again during the semester free of charge.

VIII. Education and Outreach Activities 2015-16

During the academic year of 2015 to 2016, Campus Verde coordinated dozens of activities reaching hundreds of students and general public. In our webpage, a photo album depicts most of our activities. We participated in several environmental and social activities such as:

➤ **8/18/2015: Green Campus -Green Team Meeting**

Students attended the meeting concerned. Coordinated upcoming activities involve in planned and volunteer committees and leaders of Campus Green and Eco Solar House.



- **8/25/2015 General Assembly Green Campus Green**
The assembly was in Celis- 116. They presented Dr. Sandra Cruz Pol and the presidents of the 3 Green Campus student organizations. They were released committees and summon people to belong through electronic lists. He spoke of the achievements of the initiative and future activities.
- **09/11/2015 Ride a Bike** - Meeting open to the entire community
Convened by a Bike Ride in SH 106. Director Jorge Bencosme.
- **12/09/2015 Ride of 63 km Mayaguez -Rincón** and return. Convoked by Bike a Ride in SH 106. Counselor Jorge Bencosme. Carried out successfully in order to sensitize people about the proper use of the bicycle. Visit: http://bike.uprm.edu/Ride_a_Bike/Fotos/Fotos.html
- **9/15/2015 AEA Presents: 5th Symposium: Climate Change & Agriculture.**
Campus Verde collaborate in presenting **Eco Film Dirt The Movie**, at Student Center stage.
- **9/19/2015 International Coastal Cleanup 2015: Corsica Beach, Rincon**
Cleaning costs was representing the President of the CVS, Luz Guzman and Julian Irrizary capital Scuba Dog Student Association and several members. Several bags of garbage were collected, not many compared to previous occasions.
- **9/24/2015 Ecological Insecticide Talk & Workshop:** By Hipolito O' Farril and Dr. Sandra Cruz Pol, in the Casa Eco Solar. New solutions household insecticides such as mosquito repellents and cockroaches, created with natural products, without chemicals or artificial fragrances. Info:
http://www.uprm.edu/p/campusverde/insectidas_eco-amistosos
- **9/26/2015 Cleaning / Day Trip in Cascade Gozalandia, San Sebastian.**
Sponsored by the student association SHPE and Green Campus Student. I was carried out successfully, lots of garbage was not collected in the area.
- **9/29/2015 Eco-Film: The Dark Side of Chocolate.** Presented by UNICEF. At the amphitheater of Nursing - UPRM. This type of film shown people to raise awareness and establish the conditions for human trafficking in undeveloped countries. The day of harvesting cocoa by children at a very low price, long hours of work and exploitation, for lucrative companies around the world.



- **9/30/2015 Agroecological Committees Markets Meeting, Ecocine, green ecological activities and workshops.** Volunteers willing to collaborate and work. Knowing the next work to be done and plan different activities.
- **10/01/2015 Collection Center - Recycling Job Fair**
Recycling collaborating with the RUM, this collection center cardboard and plastic before and during the 2015 job fair was organized in the Coliseum -Mangual. The President of CVs Luz Celeste Guzman was in charge of the activity.
- **12/10/2015 Surfing classes for beginners at Rincón** With Miguel Canales & Ramse Morales
Just they took successfully and with good participation. The Campus Verde membe has discount in all green activities.
- **2/10/2015 Water Quality Testing – At Balneario de Rincón, PR.**
Surfrider Foundation Rincón and Steve Tamar - they organized this workshop - laboratory. Green Campus student representatives and community service students (high school), learned to run water quality tests.
- **10/13/2015 Children Without Borders Haiti Talk: Refugee Crisis in Haiti**
Organized by UNICEF and Chris Papadopoulos, collecting donations for this situation. Location: ININ 229.
- **10/24/2015 Annual Sustainability Training - Certificate**
In this event the participants learn many topics related to sustainability, to be prepare to deliver lectures on the following topics:

- 1. Consequences of Global Warming: Climate Change.**
- 2. Solutions at Home.**
- 3. Renewable Energy.**
- 4. Transport with low emissions of greenhouse gases.**
- 5. Principles of Organic Agriculture.**
- 6. Diet 'green'; Effect of what we eat in the emission of gases (GHG) emissions and resource use.**
- 7. Recycling, the importance of Reduce and Reuse before recycling.**
- 8.**

CAMPAÑA: NIÑOS SIN FRONTERAS

¿Conoces lo que está ocurriendo en la frontera Dominico-haitiana?

Te invitamos a ser parte del cambio. Ven para que conozcas un poco más sobre lo que ocurre en la frontera de nuestros vecinos isleños.

Invitados a la actividad:

- Didi Ananda - Directora de Escuela Ananda Marga y coordinadora de ayuda.
- Estudiantes universitarios haitianos

Fecha: Martes 13 de octubre de 2015
Lugar: ININ-229 (Anfiteatro)
Hora: 10:30AM (Hora Universal)

Donativos a Fundacion Neo-Humanista: am_fnh@yahoo.com
 Banco Popular: 316 149 805

Este evento forma parte de la campaña Solidaridad con los Desplazados Dominico-Haitiano de la Alianza Puertorriqueña de Solidaridad con Haiti



Fundacion NeoHumanista de Puerto Rico





Friendly Insecticides. 9. Green Cleaning carcinogens in common products. 10. Smoking and the environment. 11. Effective Oral Presentations. 12. Solar Educational Workshop Circuits (K-12).

(Video shorts related to various topics as been shown). The workshop was conducted successfully. Snack and lunch was provided and the digital certificate was sent by mail.

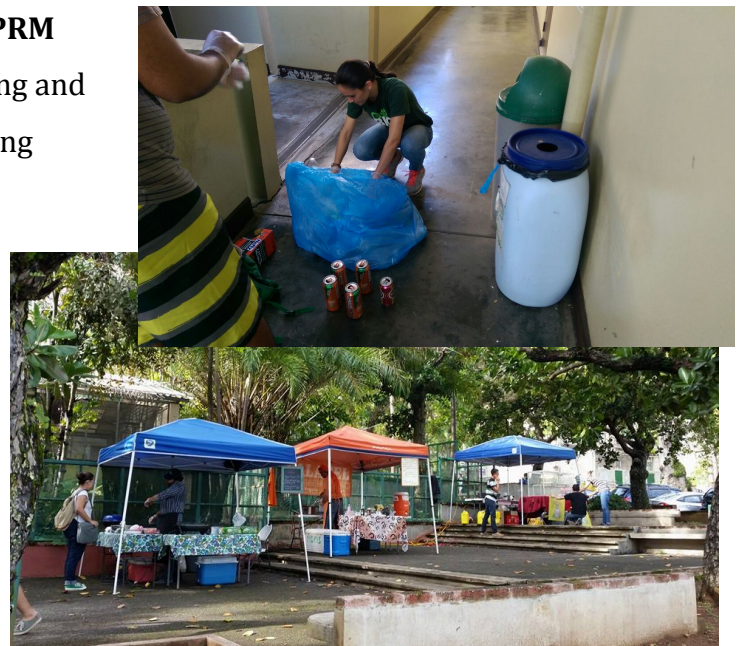
➤ **11/03/2015 Eco Film: Origins**

Presentation of documentary Origins. It opened online registration and lists filled at the entrance to convene hours Contact Government Ethics. The resource for questions and discussion forum was Dr. Valdes Pizzini and Dr. Boglio – UPRM Professors, from Social Sciences Department.



➤ **12/11/2015 Recycling Collected in the UPRM**

Organized by the students Committee cleaning and recycling nature. With the support of Recycling UPRM and Health and Safety. The committee students collected several recycling bins UPRM several buildings, about 11 bags from plastic and aluminum cans were collected. Piñero 2 bags, Luchetti 1 bag, Stefani 4 bags, ININ 1 bag, Physics 2 bags, Library 1 bag.

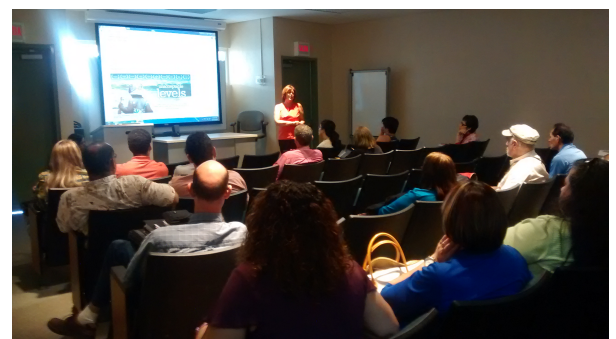


➤ **11/17/2015 Market AgroEcológico**

It took place with the support of Social Activities. Kiosks and tables of natural and organic products and vegetarian food.

➤ **11/17/2015 Eco Film: Unacceptable Levels**

Presentation of documentary Unacceptable Levels. It opened online registration and lists filled at the entrance to convene hours Contact Government Ethics. The resource for questions and discussion



forum was Dr. Belinda Pastana.



➤ **11/19/2015 Painted Biciflechea the RUM:**

Sponsored by the Master Plan Bicycle in the UPRM and a Bike Ride. Campus Green got the donation of paintings with **Master Paint PR** and students convened community service, with the support of the administration.



➤ **11/24/2015 Classes of Eco Cocina: Artisanal Bread & Cranberries Sauce**

It was carried out with successfully conducted for the first time. Participants were pleased, sending them satisfaction survey where all were positive. All products used are organic and explain in detail the importance organic and organic products are used throughout our environment. By Dr. Sandra Cruz Pol.



➤ **12/05/2015 Compinche Verde Meeting 2015**

It was in the Solar House, representing Roots and Shoots from Jane Goodall Institute and the Catholic University of Ponce to others students and organizations.



Photo of Compinche Verde Members, including Dr. Asselta from Jane Goodall institute (far right).

➤ **12/07/2015 Recycling Partnership Regional PR Meeting**

Dr. Sandra Cruz made presentation of the Green Campus achievements in recent years and how those achievements have brought on recycling and sustainable measures in the UPRM and the EcoSolar House. At San Juan, PR.



Photo of Dr. Sandra Cruz-Pol participating at the meeting of the Puerto Rico Climate Change Council, May 2015

➤ **12/08/2015 Meeting House EcoSolar: Stage 2**

Students and teachers called, all interest in carrying out projects in the House to complete the second phase showed. Works committees and volunteers were organized to work in gardening, water collection projects, ecological paint, ushers and others.

- **12/08/2015 Classes Ecocina: Apple Crunch & Green Smoothie.** It was just successfully. Participants learned how to make these delicious recipes. All ingredients used are organic and integrals. During the class participants learned environmental health reasons and has the use of these products.



➤ **1/23/2016: Organic Garden Workshop: ECO Garden Workshop**

We sow to consume our food in workshops of **ECOCOCINA** and care for the Planet! Resource: **Nelly Asselta from Roots and Shoots Program of the Jane Goodall Institute.**

- How to make compost?
- How to make an ecofriendly garden pollinators?
- How to make a home garden in beds, spices, vegetables and vegetables? (Raised garden)



- **1/28/2016 Green Campus Green General Assemble** at universal Time: 10:30 a.m. Location: House EcoSolar (located in the CID). For those interested in joining the team of volunteers or members of student associations affiliated to Campus Green-Green Initiative schoolboys blood. We plan sustainability and conservation projects. We carry out cleaning beaches, planting, renewable energy workshops and more.
- **2/4/2016 Meeting: Education Policy Implementation, Reduction and Elimination Beverage Sales Plastic Bottles, Polystyrene and Plastic Bags in the Mayagüez Campus of the UPR.** Mini award of a grant through Green PR and Syracuse University in USA. In charge of the counselor and green leader Sr. Jorge Bencosme.



- **2/8/2016: Call for Proposals for Ecosolar House Museum Exhibits.** At limit date the students must submit a maximum of 10 pages where you explain your project is a sustainable business in solar eco house. For the Open house held on April 22, 2016, commemorating Earth Day, projects were selected for display as the luminaires - luminaires comparing three types, Hydroponic, recycling demonstrations.
- **2/17/2016: Online Course: Environmental Sustainability.** It is taken online, from anywhere in the world! Prof. Sandra Cruz Pol, Ph.D. University of Puerto Rico Mayaguez Campus. Division of Continuing Education and Professional Studies (DECEP). (15 hrs.) In the course, examine the main environmental issues and trends happening in modern society from a scientific and practical perspective, including energy and the use of other resources, pollution, climate change, water, and population. Conceptual definitions of sustainability introduced and discussed plans and sustainability of organizations and institutions.



Module 1: What is sustainability? / Introduction to Climate Change

Module 2: Green / Renewable Energy Savings

Module 3: Transport / Electronic Waste

Module 4: Products (Chemistry) green (green cleaning, cosmetics amb) / Organic Agriculture

Module 5: Ecological Diet / Ecological Economics

Module 6: The 3 R's; (Bags and bottles) / consequences of what we buy: consumer power.

- **2/20/2016: Bike Rally:** All united promoting a culture of road safety. Under the slogan "All united promoting a culture of road safety," Bicycle Master Plan of Mayagüez Campus (RUM) invites to participate in the "bici-rally" a bike ride in Mayagüez on proclamation of a better road safety.
The event will be on Saturday, February 20, 2016. The schedule for registration is 7:00 a.m. and departure time is 8:30 a.m. the teeing ground is the mezzanine RUM.
The route was 15 km, suitable for the whole family. The activity was open to the entire community. To participate a donation of \$ 10 was collected at the event. The money raised will be used to improve cycling infrastructure in the Mayagüez Campus. Helmet use is required to participate.
- **2/26/2016: Educational talk Recycling:** for the university community on the issue of recycling in the RUM. Preamble to the activities Recycling collected in the RUM.
- **2/26/2016: Talk in Huella Colegial at Mayaguez, *Eco friendly products & Green clean (see photo below of participants)***



- **2/27/2016: Day Kayaking con Joel y Rolf, La Parguera: Purpose of the event:** To Promote UPRM students, employees, professors or experiences to Have That They would not normally encounter in UPRM. Available for the event equipment: life jackets, paddles, and kayaks
Team Owner: Dr. Dallas Alston, Mr. Roberto Ortiz, and Dr. Jeffrey Friedman.
Recommendations for each participant: snack, water, medications, sun screen, from the sun protective clothing, small first aid kit, glasses band, Extra clothes after changing from your wet clothes after kayaking.
Additional equipment that can bring: Note: we are planning to snorkel, so bring your snorkeling gear (mask, fins), sunglasses, camera (but remember zip-lock bags That Have leaked in the past), GPS receiver.



- **2/27/2016: The Recycling Committee** and Cleaning Nature Green Campus Student Association Students was invite to Recycling Collected in the RUM. The same was 8:30 a.m. to 12:30 p.m. The students recollected approx. 17 bags of recycling material, all around the campus. Chemistry buildings were collected: 1 bag, InQu 4 bags, Biology 3 pouches, Piñero 2 pouches, Chardon - Mechanics 1 bag, Stefani - ININ 3 pouches, Physics 2 bags, SH - Library 1 bag.
- **2/27/2016: Ride a bike** ride 80 km from Mayagüez to Aguadilla and return. Given the distance of 80 km (50 mi) traveled, I was required to have a good cardiovascular fitness and endurance. This run is geared for intermediate amateur cyclists or those who maintain a steady pace of 18-32 km / h (11 to 20 m / h). There will be a group for those who need motivation, no one will be left alone and be together all the time.
Some essential things for the activity:

Feed and hydrate well the days before having a complete and nutritious breakfast that day and hydrate well. Bring drink with electrolytes such as coconut water or Gatorade, etc. and sufficient water 2 to 3 L. Snacks such as fruit and nutrition bars, light food like sandwiches, etc. Sunblock or sleeves in arms and legs to protect from the sun. Refill tubes or rubber tubes patches for bicycle, manual air pump to fill tires. First aid equipment such as bandages, cotton gauze, alcohol, triple antibiotic, enough cash for food and refreshments, among others. The activity was subject to weather conditions. Wearing a helmet is always required.

Visit: http://bike.uprm.edu/Ride_a_Bike/Fotos/Fotos.html



- **03/12/2016: Expedition and share: Fuerte Caprón, Guanica.** Nature travel and share the hidden wonders of our island. "The Fort Caprón is not a spectacular building, but has an interesting history and from its roof a spectacular view of the Bay of Guánica is enjoyed. The fort was abandoned and over time disappeared. The walk from the parking Guánica Forest to the fort is about 5 kilometers and takes an hour by step firm and without distractions. Definitely worth, but like all walk through a dry forest it is preferable to undertake early and bring enough water".
- **3/19/2016: Earth Hour:** It involves turning off the lights in your home or workplace for an hour during the day is a global event. We promoted an activity day with the family. It carries the message of how important it is to conserve the resources of our planet, which are affected daily with the excessive energy consumption and others.



- Our students painted the sign below within campus to create awareness and remind people of this global event.



➤ 3/26/2016 Day

Kayaking con Miguel: Possible Pitahaya-Special Pitahaya is a wind sheltered area composed of lagoons with extensive canals. Here the wind does not bother as much and the sun does not eat you up as much. You will get to see areas that are not open to boats and experience the heart of a mangrove forest. Participants should be able to paddle at least 1.5 miles. It is as a physically demanding activity.

- **4/8/2016: First PR Trash Free Water Regional Meeting:** The **Environmental Protection Agency (EPA)** in collaboration with **the PR Recycling Partnership** presented in the West the first Regional Meeting of **Trash Free Water**. From 9:30 am to 6:00 pm. Goals: Promote and encourage the local community and organizations to join the efforts of the TFW initiative in Puerto Rico.

Conduct workshops based on demonstrative pilot projects on plastic bags, plastic bottles, plastic bags or boxes, cigarette butts and plastic micro. Participate and establish cooperation mechanism between local environmental organizations and TFW team. Environmental local organizations has present their efforts. One of the presentations discussed was the Policy UPRM& Green Campus Educational, reduction and disposal of working plastic bottles, plastic bags and polystyrene on the grounds of Mayagüez



Campus, by Dr. Sandra Cruz Pol. Original proposal created in the UPR - Rio Piedras and the Central Administration under the Certification #36 of the Administrative Board. Saturday, April 9, 2016 from 8:00 a.m. to 12:30 m. Field trips, Visit the Nature Reserve 3 Palmas in Rincón and Rincon Former Landfill steps from Balneario de Rincón.

- **04/09/2016: Monitoring Day Water Quality 2016:** Rincón Water-Quality Monitoring Day (DMCA in Spanish) is an annual event organized by the Estuary Program San Juan Bay to help monitor water quality of the beaches, rivers, streams and lakes in PR. This year, about 100 teams participated. Campus Green collaborated again this year with the Surfrider Foundation Rincón, which has much experience about testing water quality (due to their weekly monitoring program Blue Water Task Force) were the only team that also provided microbiological data to the DMCA. We hope tested 15 beaches and 12 freshwater areas this year from the Culebrinas River in Aguada to the Añasco River - as usual, providing the most data of any team DMCA.

- **04/12/2016 Educational campaign talk about plastic bottles and bottled water,** for



education and encourage the reduction of consumption of bottled water in order to educate the community on the subject and present the new fountains were installed to refill reusable metal bottles. In the photo is Jorge Bencosme leader of the Students Committee on Political Education, Reduction and Disposal of Plastic Bottle on Campus..

- **4/14/2016 Tours Ushers for training to the EcoSolar House.** The Green Campus student volunteers and the Solar Eco House, took a step by step of the important components off of the House to receive visitors and take them to meet each space used as a sustainable source training.

- **4/18/2016 Earth Week: EcoCocina: [Pizza Artisanal](#) and [Green Smoothies](#), [tours](#) to the Eco Solar House.**

- **4/19/2016 Earth Week: World Bicycle Day celebrated Earth Week: World Bicycle Day.** Upon completion of a bike ride around campus, they open and presented the new bike fixing stations and improvements to community infrastructure to support cycling at UPRM.

10:00 a.m. - Formation of bike with people in the old athletic field.

10:30 am - Bicycle Ride departing from the Old Athletic Field through the streets of RUM.

11:25 a.m. - Opening bicycle repair station in the Student Center.



11:35 a.m. – Opening the first bicycle lane on the main avenue.

Link: <http://www.uprm.edu/portada/article.php?id=3640>



Jorge Soldevila -Active leader student of EcoSolar House

Link:

<http://www.uprm.edu/portada/article.php?id=3640>

- **4/20/2016 Eco Cine:**
Delivers Cinema under the stars: Documentary: *Tapped*. Presentation Education Policy, reduction and elimination of plastic bottles and plastic bags. Resource: Jorge Bencosme, leader of Campus Green Committee and students.

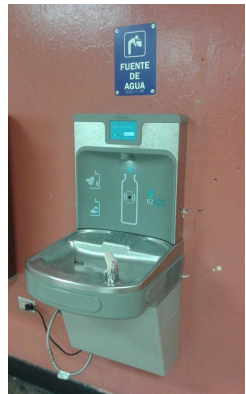


- **4/21/2016: Initiation of all new members of the Student Associations** affiliated with Campus Green, in the Tarzan Hall, annex of the Student Center. Green Commitment ceremony, karaoke, dinner will be held and shared among all members of Campus Green, Ride a Bike & GBS. The share was free for members with paid membership, the guests made a donation of \$ 15. We give away pens from

recycled plastic bottles and delivery of the Certificate Verde.



- **4/21/2016: Planet week: Forum - Plastic Bottle and effects to health and the environmental.** Resource: Jorge Bencosme, Principal investigator and adviser of the committee responsible for Education Policy, Reduction and Elimination of plastic bottle in Mayagüez, CRECE; policy commissioned by the Rector of the enclosure, after being approved the number 35 and 36 Certification University Board of the University of Puerto Rico, Río Piedras Campus. **Objectives:** Educational campaign for education and reducing consumption of bottled water in order to educate the community on the subject and present the new fonts to be installed to fill reusable thermoses to be located on the second floor of the



Campaña de Reducción y Educación para evitar el Consumo de agua Embotellada

Reduce el consumo del plástico y se parte de un Recinto que contribuye para un mejor planeta.

EL AGUA ES GRATIS. ¿POR QUÉ PAGAR POR ELLA?

UTILIZA UNA BOTELLA REUSABLE!

<http://www.uprm.edu/crece>



Student Center and Chardon Building lobby.

- **4/22/2016: EcoCine: Wall-E:** It is a shocking animated film for all ages where along robot is on planet earth for the sole purpose of collecting the garbage that is left of human waste. Where there is no source of life only a cockroach, then finding a plant that emerged from the remains of waste. Sending a message to the humans who got lost planet earth and focused only on technology and themselves. Witnessed by 200 people at an event to validate hours of Government Ethics.



- **4/22/2016: Earth Week: Open House of EcoSolar House.** An open house was conducted to the university community and in general to publicize the progress and displays by students as research and development projects in areas of sustainability. Students were trained to be ushers conducted tours and showed the house more than 65 people who visit occurred, including the local press as WOLE TV channel 12 and others for interactive media including Prensa RUM.

✓ LINK: <http://www.uprm.edu/portada/article.php?id=3640>



Fig. 11

- **4/23/2016: Reforestación Colegial UPRM:** This initiative was created by students focused on planting trees in areas where they are needed to create a natural ecosystem for conservation and sustainability. Students of campus Verde participate during this initiative.

- **4/30/2016: Caminata por el Cambio Climático 2016.** Promotion of event: Walk for Climate Change 2016. Organized by the El Puente Latino Link Climate Action and Surfrider, Rincon.



- **5/13/2016 Eco Garden Workshops.** Each month the student volunteers have participated in the development of it, planting edible and pollinating plants to create a natural ecosystem around the house. They have learned to work with compost and how to plant and ground maintenance on the Aquaponic system, fish feeding and giving maintenance to the area.



Thanks to you all!

Fig. 12 Committee of Eco Garden Students and Volunteers at EcoSolar House.

➤ **5/17/2016: Workshop:**
Learn to eat to stop
Climate Change: *Organic*
Food Talk

Educating people to better health and reducing the impact, to leave a better planet for future generations. In this workshop were a series of documentaries which are on the website of Campus Green and forum questions posed was

conducted in a presentation where people responded energetically and were very attentive and pleased the issues discussed.



➤ **5/17/2016: SciGirls Summer**

Camp: Convocations for summer camp that takes place in the EcoSolar house opened in July. SciGirls's summer camp is for 10 girls between the ages of 8-13 years. Sponsored by the NSF, aired in PBS Kids Latino.

➤ **6/14/16: Pre-engineering Summer camp students visit the EcoSolar House.** 46 students from high school were interested on techniques of energy conservation and the photovoltaic solar system.



- **6/16/2016: Eco garden workshop form Social Community Services** in the EcoSolar House, 30 students from high school contributing and learn about the sustainability techniques and eco gardening.



IX. Surveys: All of the surveys below offered a prize to encourage participation.

- **Surveys Ecococina workshops.** Choose recipes that you like to learn to make an ecological way. Including the schedule and the price of the class.
Link: <http://goo.gl/forms/yREihqwxJ058ZTKz1>
- **Survey Green Environmental issues.** Is send every year to all the community.
Link: <http://goo.gl/forms/T90U0FXQzQ1ftefs1>
- **Survey on the effects of smoking on the environment.** An ecological ashtray will be given away to encourage people not to throw their cigarette butts on the ground or land and polluting because of the large amount of chemicals they have.
Link: <http://goo.gl/forms/K8iM02gPUk49ECjF2>
- **Survey toilet paper.** About how we must learn to make good use of the toilets reducing contamination in the bathrooms of RUM. We will be giving away horn BlueTube for Androind and apple.
Link: <http://goo.gl/forms/pUWAAKyMZXD9fAI92>

X. Radio interviews and TV Press

- Radio interview in **WPRA 990AM** at Mayagüez with Toty Figueroa. April 18, 2016
- TV Interview: Casa Abierta en el Casa EcoSolar, **WOLE TV**, April 22,2016
https://m.youtube.com/watch?v=BZdFvjv4ie8&feature=player_embedded
- TV Interviews: **Casa Abierta en el Casa EcoSolar, La isla Oeste.com**, April 22, 2016
https://www.youtube.com/watch?v=BICs21K_Lks
- TV Interviews, Mirada Científica, Canal 3 (PR-Gov.), 8:30-10am, Casa EcoSolar, May 12
- Prensa RUM, Earth Week Article: <http://www.uprm.edu/portada/article.php?id=3640>



XI. Proposals Submitted:

📅 **Period between: January 2016 - June 2016:**

1. *Ford Environmental Donations, P.R:* **Conversion of electric golf car into solar:** Dr. Erick Aponte & Dr. Sandra Cruz Pol: \$3,000
2. *Ford Environmental Donations, P.R:* **Green Kayak Adventures:** \$5,250, for 5 kayaks y 5 lifesavers, by Dr. Sandra Cruz Pol.
3. *Ford Environmental Donations:* **Casa Eco Solar Exhibits:** for 7 tablets y materials: \$2500; video games designed by students about environmental measures such as saving water and energy, by Dr. Sandra Cruz Pol.
4. *Ford Environmental Donations, P.R:* **Casa Eco Solar Museum- Furniture,** \$5,000; Implementation and creation of eco-friendly furniture, by Carmen Castañeyra.
5. *Ford Environmental Donations, PR.* Casa Eco Solar Compost, #2,000. Workshops and creations of new compost area, by Carmen Castañeyra.
6. *National Science Foundation:* **INFEWS: T3: Culebra Urban Resilience for Food, Energy and Water- CURFEW;** \$2,998,151/ 3yrs, Dr. Sandra Cruz-Pol, Dr. Fabio Andrade; \$3M.
7. *EPA PP:* **Water Conservation, Energy Efficiency and Stormwater Pollution Prevention Assessment,** Dr. Sandra Cruz Pol, Dr. Rivera Santos, Cenilda Rodríguez Santana; \$200k
8. *EPA PP:* **Eco Sustainability Training and Awareness Rewards (ecoSTARS),** Dr. Sandra Cruz Pol, Dr. Mari Luz Zapata & Prof Carmen Castaneyra; \$135k

Period August 2015 to December 2015

Approved Proposals:

1. Approved Proposals:

AmeriCorps 2015-2016: with the Municipality of Mayaguez. Active service members for Eco Solar House.

2. ***Proposal to education, reduction and elimination of plastic bottles, plastic bags and polystyrene use*** within the precincts of Mayaguez- UPR. Proposal convened by the Rector of the University Dr. John Fernández Van Cleve presented to the Junta Universitaria in August 2015.
3. **Mini grant on: *System in collects rainwater and reuse greywater*** by Dr. Colom- Ustáriz. Generating Replicable Environmental Education Networks in Puerto Rico **(GREEN-PR)** Mini-Grant program administered by the Environmental Finance Center at Syracuse University with support from EPA Environmental Education. A donation was incurred of \$ 5,000 to be used in the House Solar Eco by the Agency Syracuse University Center for Sustainable Community Solutions & Green PR.
4. **Mini grant on: *Education Policy Implementation, Reduction and Elimination selling drinks in bottles Plastic, Polystyrene and Plastic Bags in the Mayagüez Campus of the UPR*** by Jorge Benconsme. Generating Replicable Environmental Education Networks in Puerto Rico **(GREEN-PR)** Mini-Grant program administered by the Environmental Finance Center at Syracuse University with support from EPA Environmental Education. Agency: Syracuse University Center for Sustainable Community Solutions & Green PR. The Grant was incurred of \$ 5,000 Source: <http://files.ctctcdn.com/79cf43a2401/b4132ae2-17bc-4d42-8dfa-36b24640bdf.pdf>



Proposal Approved Donations: Eco Solar House Project (integrate in 2015)

- ***Solar System Donation:*** Maximo Solar Industries. Solar system for Casa Eco Solar (\$22,000). Contact: <http://www.maximosolar.com/es/>
- ***Windmar PV.*** Donation of inverter for solar system of Casa Eco Solar. Contact: <http://www.windmarpv.com/>
- ***Abbot Donation*** for Eco Solar House of \$1,000
- ***General Electric and*** Boeing Donation of some inverters and transformer of EcoSolar House.
- ***Master Paints*** Paint for **House EcoSolar** -, paint inside and out type with zero VOC Green Seal, (\$1,200) Contact: Miguel Vergara: MVergara@mastergroup-pr.com

Travel in PR and meetings:

- VII Reunión Cumbre del Consejo de Cambios Climáticos de Puerto Rico (PRCCC), Abr 7, 2016, Condado Plaza SJ. To provide recommendations to the government on mitigation and adaptation. 6 hours.
- **Compinche Verde Meeting** with **Jane Goodall Institute**, March 28, at Ponce, PR, 3 hours.
- **Green Team UPRM- Campus Verde Meeting** with **Jane Goodall Institute**, June 30 at UPRM. Photo link:
<https://www.facebook.com/photo.php?fbid=10154386942255048&set=t.1184157568&type=3&theater>



CAMPUS VERDE - COLEGIO DE MAYAGUEZ
Universidad de Puerto Rico

XII. Student Chapters:

Campus Verde has previously served as an umbrella for green activities from other student associations and chapters. We have **Ride-a-Bike**, a group that promotes biking as a means of clean and healthy transportation and lead by the counselor Jorge Bencosme. We promote their activities through all of our means including social networks like Facebook and Twitter.

The group of student, the **Green Buildings & Sustainability UPRM Group** student chapter. This group development the **Cool Cities subgroup** which coordinates talks to schools about sustainability topics. It also helps with the annual coordination of the **LEED (Leadership in Energy & Environmental Design)**. Certification course and with corporate visits to USGBC certified Green Building in Puerto Rico. **UNICEF** is also integrated to our student organizations. This group deals with the mitigation of extreme poverty which has been augmented due to climate change. Our UNICEF Team previously finished 3rd among 85 university teams in collecting donations for children.

In addition, Campus Verde has a student chapter, called **Campus Verde Students** that helps coordinate green activities like talks to schools, beach cleanups and tree planting with other student associations as **PRWEA, IEEE, Tau Beta Pi, BBB, SWE, SHPE**, and others. And **AmeriCorps** as a group of members affiliated to Campus Verde.



Fig 13. Student chapter affiliated under Campus Verde, in addition to our collaboration with green activities of other student's chapters and our Campus Verde Students.

XIII. Campus Verde Students

As mentioned above CV counts with a student chapter. This group of students is a very active and dynamic group that brings ideas and actions. Help coordinate green activities like beach cleanups and tree planting with other student associations as **EAE, IEEE, Tau Beta Pi, BBB, SWE, SHPE**. Below is a list of our directive from this year. Info at:

http://www.uprm.edu/p/campusverde/campus_verde_students



2015-2016

- ❖ **Presidente** – Luz Celeste Guzmán
- ❖ **Vice-Presidente** – Irami Gonzalez
- ❖ **Tesorero** – Julian Irrizary
- ❖ **Secretaria** – Jossmarlyn Montañez Rivera
- ❖ **Relacionista Público** – Luis Rivera
- ❖ **Vocal** – Yiamar Rivera Matos
- ❖ **Kayak Green Leaders** (prospects pending): [Rolf-Martin Vieten](#) , [Josean Torres](#), [Rafael Padilla](#), [Héctor Quiñones](#), [Marilyn Pérez](#), [Edgardo Estavillo](#).

Educational, Recreational and Outreach Activities: 2015:

Cleaning committee to nature: cleaning coastlines, beaches and rivers

Recycling Committee: UPRM, meeting with the university administration about the situations encountered following material collected for recycling.

Eco Solar House committee: Ushers and volunteers for activities and maintenance and development of the various projects of the house.

Sales of organic snacks and flowers: To provide people with alternatives different consumption and sale of sunflowers for Valentine's Day.

Ecocine committee: Provide different education resources to the university community



Fig. 14: Students positions for the CV Student chapter.
Positions for the year 2014-15. Activities are part of
Campus Verde Organization.



XIV. Ride a Bike: Promote Bicycle Transportation

A. Official Student Organization

Ride a Bike is an official Student Association in Campus.

Visit http://bike.uprm.edu/Ride_a_Bike/Inicio.html



2015 – 2016:

§ **Consejero:** [Jorge Bencosme](#) (Co-Director de Campus Verde)

§ **Presidente:** Emanuelle D. Rodríguez

§ **Vive Presidente:** Christian Adrover

§ **Secretario:** Luis M. Rivera

§ **Tesorero:** Edwin Rivera

§ **Vocales:** Edwin O. Ortiz, Nataly Camacho y Orlando Olivo.



Fig. 15 Students positions for the Ride a Bike Student chapter. Positions for the year 2015-16. Photos of a ride to Aguadilla – Mayagüez.

B. Project:

- **Mission:** To promote the use of bicycles as alternative transportation to reduce traffic congestion, contribute positively to the environment and improve the quality of life of the whole community.
- **Vision:** To work actively in the promotion of cycling and its benefits as a means of alternative transportation in and out of the campus including the community in general.
- **Objectives:**
 - Educate the university community and the general public about the benefits of using bicycles as transportation, recreation and lifestyle.
 - Intercede for infrastructure provided by the university administration and the municipality to facilitate and promote the use of bicycles.
 - Recreational Plan for fraternization Member activities.

C. Educational, Recreational and Outreach Activities: 2015-2016

They have collaborated with the initiative of Students of Civil Engineering on the Plan maestro de Bicicletas (Master bicycle plan RUM) del UPRM for creating plans ranging from a first bikeway inside the enclosure as the implementation of stations auto repairs bicycles located on three strategic points. He has made counting bicycles and pedestrians entering and leaving the campus. Visit:

http://bike.uprm.edu/Ride_a_Bike/Fotos/Fotos.html

XV. Green Buildings and Sustainability UPRMGroup

Official student Organization: Green buildings group strive in planning workshops and outreach are aimed at students from middle and high schools, as in the search for alternatives by doing research studies in buildings UPRMlooking for new ways to energy savings.



2015 - 2016

- ❑ **President:** Francisco Torres
- ❑ **Vice-President:** Jossmarlyn Montañez
- ❑ **Finance Manager:** Rolando Casado
- ❑ **Public Relations Coordinator:** Otto

Oppenheimer

- ❑ **Director of External Activities:** *Yuan Calderon*
- ❑ **Director of Internal Activities:** *Keishla Ríos*

Fig. 16: Students positions for the GBS Student chapter. Positions for the year 2015-16.

A. Educational, Recreational and Outreach Activities

1. Internal Events: During the Fall Semester 2015 GBS-UPRM held:

- ❑ **2 General Assemblies: August 2015 and January 2016**
- ❑ **2 Recruiting events**
- ❑ **LEED Green Associate Review Course:** Postposed

2. Projects:

- ❑ **Cool Cities:** The Cool Cities Project is one of our biggest opportunities for our members to get exposure in green initiatives since they have hands on experience helping the environment using their respective college disciplines. It is composed of three different student committees, which each one will be explained in further details throughout this section. GBS created several metrics that will record the progress of each committee, semester by semester. Every May and December, an evaluation is made based on the metrics in order to keep moving forward with the groups regarding results and reaching our goals. The metrics are divided in three simple categories: Environmental Impact, Economic Impact and Knowledge Impact.
 - **Environmental Impact:** benefits that will make to the planet based on the recommendations that each group makes.
 - **Economic Impact:** will record the economic benefits of implementing the recommendations made by each group.
 - **Knowledge Impact:** will record the quantity of students that gained some green experience by seminars, trainings and more.
- 3. Recycling Research Committee:** In Puerto Rico approximately 2,376 tons of glass is recycled, while 118,000 tons are produced annually. Our project aims to create a machine that will make possible to recycle a greater amount of glasses.
- 4. Energy Audit Committee:** During this semester the energy audit group had over 3 conferences in which 15 students were introduced to the project and the metrics used to make it possible. These students will create groups, and they will be assigned to a building in campus to recommend alternative that will help lower the use of electricity and make the use more efficient. The greatest

impact of this group was to have participated in Rebuilding the House Eco Solar. The students did volunteer brigade supervised by engineers and project managers inside and later painting using paint Eco Pure Master Paint work and the installation of solar panels. This students are Jossmarlynn Montañez (leader), Nicole Farinacci, Rolando Casado, Francisco Reyes, Eugene Matos, Noel Torres, Elijah Rivera, Cesar González, Jorge Sol de Vila, Kevin Alicea, Ryan Torres (Green leader), Yashiria Saldaña and Andrés Vélez.




Fig. 17: GSB UPRMGroup works in Eco Solar House 2015 and other activities.

XVI. UNICEF Campus Club

Official student Organization:

Association designs its fundraising activities and to Create Awareness of the current situation of poverty across the planet. Helping to eradicate extreme poverty Planet, which has been magnified with Climate Change due to extreme droughts, floods and other events that affect agriculture, life and property. Every contribution makes a difference.



2015-2016

President: Kariel Díaz Maisonet


Vice-President: Nicole Massas

Finance Manager: Lizmar Rodriguez

Secretary:

Marketing Manager: Marilyn Pérez

Counselor: Dr. Sandra Cruz Pol



- Sales (Sweet and Salty Out, Out Brownie, Popcorn Sale)
- Free Hugs Sale
- Valentine, UNICEF's with (sales and activity Valentine)
- Believe In Zero (awareness activity)
- Teach UNICEF (child education activity in collaboration with ACS)
- Trick or Treat for UNICEF
- Guidance -Asamblea
- Day Of Prepas (orientation table)

>Figure: Unicef UPRM TEAM #1 in money donations.



XVII.AmeriCorps

A. Project

Green Campus is also part of the **AmeriCorps** teams and in conjunction with the Municipality of Mayagüez, provides work for 30 people from the community and students RUM. New approved of a budget of \$ 137, 850 for 2015 and 2016 on environmental projects, thanks to the “*Oficina de Comisión de Voluntariado y Servicio Comunitario de Puerto Rico*”. AmeriCorps Program **C.H.I.P.E.** After completing this period is granted an educational scholarship participants. As stipend but no salary, receiving funds does not disqualify you from other federal aid.

As of October 2015 AmeriCorps members CHIPE project, the Municipality of Mayagüez in partnership with Campus Verde University of Puerto Rico, Mayaguez Campus; federally funded project under the AmeriCorps program. The same extends to September 30, 2016 (according to the federal fiscal year). Dr. Cruz-Pol was the site supervisor in this period.

The main objective of these members under CHIPE Project is participated in various activities of both the AmeriCorps program and Campus Green. Joint activities with Campus Green is empowerment of Eco Solar House and in the Acuaponic System.

B. Additional alliances and dissemination

1. In our effort to reach beyond the university limits, we have formed the following alliances and dissemination strategies:



We have just started an official collaboration with **Dr. Jane Goodall's Roots and Shoots (R&S)** environmental program, so our program is officially affiliated to them! This was as a result of our talks with Dr. Rick Asselta, Puerto Rico's R&S representative. Visit on January 30, 2014 Rick Asselta and his group visit us to see how we can collaborate to create a greener Puerto Rico. **Jane Goodall** founded **Roots & Shoot** environmental chapters (R & S), first in the U.S. and now across the globe. **JGI Roots & Shoots Latin America & Caribbean (LACRIB)** Fig. 19

Campus Verde is proudly affiliated to Dr. Jane Goodall's R&S Chapters.



2. We have our Twitter account linked to a global group in Facebook called *Campus Verde Colegial* so that we can reach people outside the academia with tips on how to save money and help the environment. We've had people from as far as Argentina complementing the group messages!



FB page: Campus Verde Colegial @CampusVerdeUPRM



XIV. Energy Conservation and Efficiency

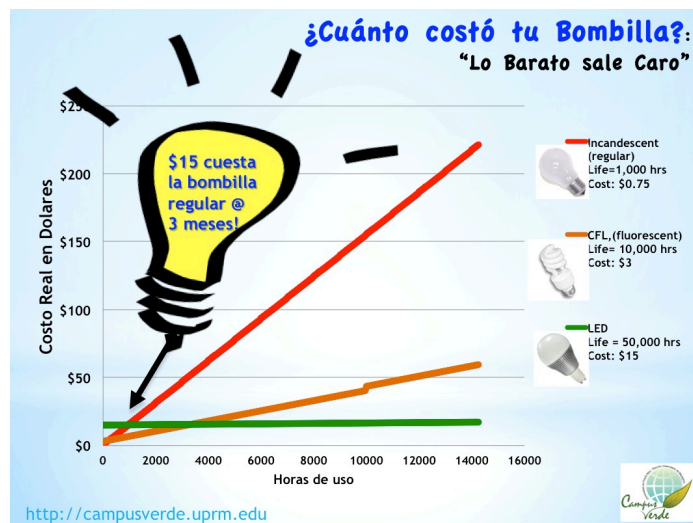
Our green leader Jorge Bencosme, produced a document with an inventory of the outside lightning around campus to show all the lights that remind on due to photo control failures or not been controlled automatically by a photo control or timer.

This document was updated and can be viewed and downloaded at
[http://campusverde.uprm.edu/ReporteAhorro\\$LuminariasRUM.pdf](http://campusverde.uprm.edu/ReporteAhorro$LuminariasRUM.pdf)

In the document is referenced the section of Energy Conservation, part of the Energetic Plan of the institution in which compares the cost analysis of replacing the existing outdoor lighting for a more energy efficient one, and the time it will take to recover the investment with the savings in energy bill.

It was proposed that:

- The administration should consider the option of replacing outdoor lighting with new luminaries that can be deemed when full light output is not needed.
- Consider turning off some outdoor lighting were security is not a concern or the light does not need to be on all night.
- Energy consumption should be metered in all buildings. This data should be public as we are a public institution and will encourage to pursue energy efficiency and been an example to others.
- Equipment such as air conditioner should have the option to be remotely controlled or turned off when there is no occupancy of the building or office. Office and hall lights should be controlled by occupancy sensors.
- Entrance, halls and outdoor lighting operation in the buildings can be improved and made more efficient by automated controls such as photo controls, motion / occupancy sensing and remote controlled circuits.



- Start projects for generating renewable energy in campus and pass that clean energy to the electric grid to be locally used and reduce the carbon footprint.
- In the long term, develop the campus electricity grid to be a smart grid.

XV. Education and Outreach Materials and Training

A. Training for students and personnel about Global Warming Solutions:

Two new courses created in **Spanish** INTD 3 credit course **Environmental Sustainability**

1. **Online Course-** New Course on Environmental Sustainability offered twice through **UPRM DECEP**, Feb-Mar 2016 and Jun-Jul 2016, six weeks , 18 hours, including the following topics;

- *¿Qué es Sostenibilidad?*
- *Introducción al Cambio Climático*
- *Ahorro Verde*
- *Energía Renovable*
- *Transporte Ecológico*
- *Desperdicios Electrónicos*
- *Productos- Química Verde*
- *Agricultura orgánica*
- *Dieta ecológica*

- *Economía ecológica*
- *Las 3 R's: Reduce, Reutiliza, Recicla*
- *Consecuencias de lo que Compramos: el poder del consumidor*

The online course had record registration the first time it was offered, with participants from as far as Hawaii, Florida and Arkansas.

We continue offering the training given to students where they learn about Climate Change and its solutions in which the students are then tested and certified to give conferences, therefore spreading education. The past years, students visit several schools all over PR offering advice and talks. One of the 'adopted' schools has participated in beach cleanups with us and established a recycling program in their school.

B. Outreach materials and training:

We continue to develop materials for our website including a new pages for cosmetic and green cleaners (<http://campusverde.uprm.edu/album.html>), another about the link between healthy people and healthy planet (<http://campusverde.uprm.edu/ecosalud.html>) and we continue to add our pages with additional food eco-friendly recipes, homemade insecticides recipes, and much more. Like this examples



Visit us at:

<http://campusverde.uprm.edu>

>>>Wow 11,189 visit



CAMPUS VERDE
Recinto Universitario de Mayagüez
Universidad de Puerto Rico
Mayagüez, P.R.

Hazte miembro hoy: Asociaciones estudiantiles afiliadas a Campus Verde. Regístrate: [Eventos Verdes UPRM](#)

CAMPUS VERDE - UPRM: Charlas, Simposios, Limpiezas, Siembras, Conciertos, Presentaciones, EcoCine, Proyectos... y más.











Insecticidas Eco-Amistosos: baratos, natural y no dan asma.

Insecticidas Naturales: sin tóxicos que causen asma, irritación y alergias. Son muy económicos y efectivos. Versión pdf.

...para eliminar **hormigas, piojos, ácaros, mosquitos, pulgas, garratas, termitas y cucarachas en el hogar.**

🌿 **Ácido Bórico**

🌿 **Bórax**

🌿 **Aceite de Cedro (Repelente de Mosquitos)**

🌿 **Insecticidas para el Jardín-** para controlar plagas en plantas y huertos caseros



Ácido Bórico:

Disuelve 1 cucharadita (5mL) de polvo de **ácido bórico** y 10 cucharaditas de **azúcar** en 2 tazas de agua (500mL); moja bolitas de algodón y colócalas por donde pasan los insectos, como dentro de los gabinetes del baño o detrás de la estufa, y también **LEJOS del alcance de niños y mascotas.**

- El **ácido bórico** deshidrata los insectos lentamente y ellos no se dan cuenta, de manera que los insectos NO crean inmunidad o resistencia al veneno.

Además el **ácido bórico** se puede usar como antiséptico para heridas leves, y para el acné pues es anti-bacterial natural. Tiene usos medicinales para tratar hongos, por ejemplo, y por eso se usa en las soluciones para lavar ojos y lentes de contacto. Además se usa para tratar madera contra las termitas.

Rocíe este polvo en las alfombras para **matar PULGAS, PIOJOS y sus huevos.** No se puede ingerir pues es **TÓXICO** y algunas personas son sensitivas en la piel a este detergente.



Bórax:

Prepara tu insecticida: Mezcla una cucharadita de **bórax** con 2 de azúcar y riega el polvo por donde pasan los insectos y **¡LEJOS del alcance niños y mascotas!**

- El **bórax** es un **mineral natural** que sale de una piedra blanca y se usa como detergente para **lavar ropa** y sacar manchas de **vajillas** y ollas.

¡Además es un excelente insecticida!

El **ácido bórico** se deriva del **bórax** y ambos se consideran seguros para usar en el hogar para el control de **cucarachas, hormigas, pulgas y garrapatas.** Su **fórmula química NO es igual.** Ambos se consiguen en ferreterías como *Home Depot* y en algunos supermercados, farmacias y tiendas por departamento. Puedes usar el borax para rociar en alfombras donde se acuesta tu mascota y usarlo para lavarla. Sin embargo, ambos cambian el PH de la tierra, así que no es bueno que lleguen al terreno que se usa para siembra de hortalizas.



Más de 20 usos del BORAX para la limpieza de hogar y control de plagas [AQUÍ.](#)

Fig. 20 http://www.uprm.edu/p/campusverde/limpiadores_eco-amistosos

Aceite de Cedro: (más info [aquí](#))

(y otros aceites esenciales) una botellita de 1 onza cuesta entre \$4 a \$6 y rinde muchísimo. También venden cantidades mayores para proteger dentro y fuera del hogar, ver [aquí](#).

- **Repelente de Mosquitos:** Disuelve 10-15 gotitas de **aceite de cedro** (cedarwood oil) en 1/2 taza de agua, 1/3 taza de alcohol y 1/4 taza aceite vegetal como almendras u oliva, dentro de una botella rociadora. Le da un olor a madera que no le gusta a los insectos. Es seguro para niños y mascotas, pero no rocíe en los ojos ni cerca de la boca. Sirve para aliviar salpullido de piel (rash). Puedes añadir unas gotitas **adicionales aceite de menta (peppermint), lavanda, limoncillo y/o eucalipto** para aumentar la gama de insectos que repele además de los mosquitos. Tan efectivos como el **DEET** pero sin afectar tu salud.
- **Ácaros en la cama:** Rocíe la misma solución de repelente en la cama. Deje que se seque, olerá a madera durante unos días. Puede añadir gotitas de aceite puro de menta o lavanda que también son anti-gérmenes y tienen una suave fragancia. El cedro mata los ácaros que causan picor en la noche que se alimentan con fragmentos de piel que sueltan los humanos en los mates. Es bueno limpiar el colchón con vacuum frecuentemente. Sirve para aliviar salpullido de piel (rash).
- **Piojos:** Use la misma solución de repelente de mosquitos. Mata larvas, y huevos de piojos. No causa irritación, asma ni alergias, pues no es tóxico a los humanos. Se puede añadir al champú y al acondicionador.
- **Termitas:** Disuelva 1 cucharadita gotitas de aceite de cedro en 1/2 taza aceite de limoncillo u otro aceite, y rocíe o aplique con brocha en la madera para protegerla de las termitas.
- **Pulgas y Garrapatas:** Pon unas cuantas gotitas (no más) de esta mezcla en el **collar de tu perro**. Mezcla bien 2 cucharaditas de aceite vegetal (el de almendras contiene sulfuro el cual ayuda más aún) con 10 a 25 gotas de aceite palmerosa (*Rose Geranium essential oil*) o de cedro, limoncillo, eucalipto, romero o mezcla de varios. **Para los gatos no se debe usar** aceite de palmerosa o cedro ya que los gatos se lamen y estos aceites no son comestibles. Para los gatos usa los otros aceites.
 - Use una solución de agua, jabón líquido con base vegetal o champú herbal y unas gotas de Aceite puro de palmarosa, "Peppermint" o de eucalipto.
 - Para **gatos y perros**, mezcla 1/2 cdta de vinagre de manzana, y/o turmeric y 1/2 diente de ajo majado (no más) en la comida...esto hará que la sangre tenga mal olor y ayente a las pulgas y garrapatas. También puede untar aceites esenciales diluidos en aceite de oliva, siempre y cuando el aceite sea comestible ya que los gatos se lamen. Puede usar aceite de romero, limon, clavos.
 - Pase la aspiradora en alfombras donde su perro suele estar y lave con **Borax (ácido bórico)** disuelto en agua tibia. El Borax ayenta las garrapadas, pulgas, piojos y ácaros.



*** Nunca use aceite de cedro, palmerosa o eucalipto para los gatos pues no son comestibles .**



Insecticidas para el Jardín:

10 Funguicidas y Pesticidas Naturales [aquí](#)



Mantén un jardín **libre de insectos** sin echarle venenos químicos como pesticidas que matan insectos buenos, abejas y dañan nuestra salud. Hay muchas soluciones que ofrece la **Agricultura Orgánica** pero aquí menciono sólo algunas.

*Ver también [Insecticidas de plantas Ecoamistosos \(Entomología\)](#).

Fig. 21 http://www.uprm.edu/p/campusverde/insecticidas_eco-amistosos

¡Eco-Vivir!

[Version pdf]

...es Vivir Verdemente! Es cambiar nuestros patrones de consumo y buscar alternativas más verdes, éticas y naturales a cada servicio y producto que puedas imaginar. A comprar más sabiamente, consumir menos, desperdiciar menos, pensar acerca de las consecuencias de nuestras compras. A reducir nuestro impacto en el planeta y en nuestros compañeros haciendo decisiones que son mejores para nosotros, mejores para el ambiente y mejores para todos los habitantes del globo.¹

"We have to shift our emphasis from economic efficiency and materialism towards a sustainable quality of life and to healing of our society, of our people and our ecological systems." Janet Holmes à Court (1948 to present), Australian businesswoman.

¡Come orgánico!

¡No comas pesticidas! (ni herbicidas, insecticidas, ni fertilizantes artificiales.)



Hace unos 100 años, todos los alimentos eran orgánicos; sin pesticidas ni fertilizantes químicos.

- Los fertilizantes orgánicos, al no ser tan procesados y ser más naturales, no queman la planta.
- Los pesticidas (plaguicidas) y herbicidas son químicos que contienen muchos tóxicos que afectan el sistema nervioso, y dañan la salud, el terreno, la atmósfera y contaminan cuerpos de agua. Estos químicos se pasan a los frutos y de ahí a comida, cosméticos y a la ropa hecha con plantas que contienen pesticidas. Muchos pesticidas contienen bromuro (Br), el cual es 50 veces más fuerte que el CFC en dañar la capa de ozono, y esto a su vez empeora el calentamiento global de la atmósfera.
- Además, los pesticidas pueden matar abejas y han sido relacionados junto con insecticidas al Síndrome de Colapso de Colmenas (CCS por sus siglas en inglés) lo cual a su vez contribuye a la declinación de polinización de las plantas.
- El insecticida neo-nicotina, ataca el sistema inmunológico, en sistema nervioso, afecta la memoria y desorienta a las abejas.

¡Alimentos Orgánico!

Alternativas eco-amistosas son usar fertilizantes naturales (composta), plaguicidas naturales (como el que se hace con Neem), TerraCycle, el cual se hace con excreta de lombrices, y rotación de siembra, entre otras.

- Evita los monocultivos.
- Haz composta: trae tus bolsas de grama y hojas a la Finca Alzamora en el RUM; ahí se usa para composta, la cual está a la venta, o prepara composta en tu hogar.



<http://www.abarrataldea.org/manual.htm>

<http://www.ideashuertoencasa.com/wp-content/uploads/2013/07/consejos-para-compost-hacer-compost1.jpg>

Fig. 22 http://www.uprm.edu/p/campusverde/vive_verdemente

Telas orgánicas:



- El algodón consume 1/5 parte del pesticida de todo el planeta! Quiere decir que no debes olvidar lavar la ropa antes de ponértela si está hecha de algodón u otra tela que no sea orgánica. Sin embargo, aún así, estás echando esos químicos por el acueducto, y finalmente terminan contaminando nuestros cuerpos de agua. Han sido asociados al mal de Parkinson.
- Cada vez se consiguen en más y más comercios en Puerto Rico. Lee las etiquetas.
- Los productos sintéticos, como el rayón y el poliéster, provienen del petróleo, y producen muchas emisiones en el proceso de fabricación.

Telas orgánicas:

Para tu salud y la salud del planeta busca alternativas como:

- **Algodón Orgánico**- es regado por lluvia y fertilizado con composta, sin químicos.
- **Bambú** – es siempre orgánico, crece rápidamente absorbiendo mucho oxígeno. Crece sin ser regado y es naturalmente anti-bacterial.
- **Cañamo (hemp)**- es orgánico, protege de rayos UV y anti-bacterial. Tampoco necesita de sistema de riego.
- Otras: modal, material reciclado, tencel, jute, seda, soja...



Productos orgánicos para el cuidado de la piel:

Usa productos orgánicos para el cuidado personal:

- Repelente de mosquitos (ver receta natural [aquí](#))
- Lociones
- Jabones
- Champú
- Cosméticos
- Sábanas y frisas

Están disponibles cada vez en más supermercados, farmacias y tiendas en todo Puerto Rico. También se pueden encontrar en el Internet.

www.RMBarry.com

- Consigue productos agrícolas orgánicos a buen precio en las plazas agro-ecológicas por todo Puerto Rico, de agricultores locales. Ej. en la plaza de Rincón todos los domingos de 8am - 12m. También se consiguen en algunas tiendas como Sam's Club y Pueblo, Freshmart y el Natural Food Center de la academia adventista, entre otros.
- Los productos Burt's Bees, no sólo están hechos sin petróleo, sino que también están embotellados en envases hechos con plástico 70% reciclado post-consumidor.



*Descubre que ingredientes químicos que debes evitar en los productos [AQUÍ: Guía de Cosméticos Saludables](#)

Productos orgánicos para la limpieza del hogar:

Usa productos de limpieza que no dañen el entorno natural.

- Evita usar clorox, Lysol, Lestoil y otros productos petroquímicos que dañan el ambiente y a la larga nuestra salud y el entorno natural (fauna, flora, cuerpos de agua), causando asma, alergias y otras enfermedades.
- Puedes hacer tus propios productos de limpieza, económicamente y muy efectivos. Ver recetas de productos de Limpieza [aquí](#).



- Estos productos se encuentran en tiendas locales, y en Natural Food Centers como el de la escuela Adventista de Mayaguez, barrio Cuba, por la luz del Sam's Club hacia el este.

* Descubre que ingredientes químicos que debes evitar en los productos de limpieza en el hogar [AQUÍ: Guía de limpiadores saludables](#)

Fig. 23 http://www.uprm.edu/p/campusverde/vive_verdemente

Contact us at:
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CAMPUS VERDE COLEGIAL



Email: campusverde@uprm.edu



Campus Verde Colegial



CampusVerdeUPRM



<http://campusverde.uprm.edu>

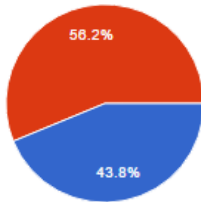




Appendix A:

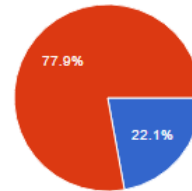
Campus Verde Survey Results Smoke

¿Sabías que se liberan 4,000 distintos tipos de toxinas si tiras las colillas a la grama o el entorno?



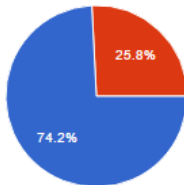
Yes	190	43.8%
No	244	56.2%

¿Sabías que un hogar promedio en EEUU aunque no fume, paga, sin saberlo, unos \$650 anuales en impuestos para cubrir los costos de servicios médicos a fumadores?



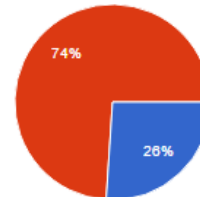
Yes	96	22.1%
No	338	77.9%

¿Sabías al dejar de fumar puedes ahorrar en promedio unos \$1,500 anualmente, y más aún, tendrás ahorros en primas de seguros, salud, dry cleaning y otros?



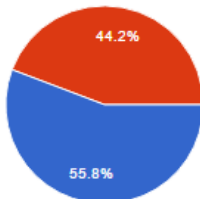
Yes	322	74.2%
No	112	25.8%

¿Sabías que se pierde un árbol por cada 300 cigarrillos?



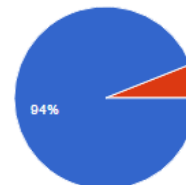
Yes	113	26%
No	321	74%

¿Sabías entre 25%-33% de los fuegos son causados por colillas o cigarrillos, ocasionando en ocasiones muertes y daños en propiedad?



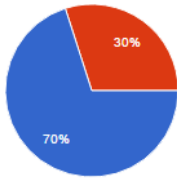
Yes	242	55.8%
No	192	44.2%

¿Sabías que el Fumado de segundas manos afecta la salud de los demás y contamina el aire y puede causar asma?



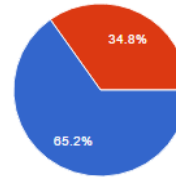
Yes	408	94%
No	26	6%

¿Sabías que los ingredientes que causan cáncer en los cigarrillos se van a tu cuerpo, al de tus familiares y amigos y a la fauna y flora (se cuelean en sistemas de agua cuando llueve en los vertederos), según reporte de FDA?



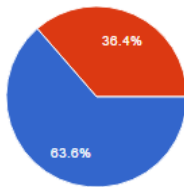
Yes 304 70%
No 130 30%

¿Sabías que se usan muchos químicos para cultivar las plantas de tabaco, (plaguicidas que aumentan el hueco en la Capa de Ozono, y fertilizantes que causan Calentamiento Global y los Insecticidas que matan reptiles e insectos necesarios como las abejas) ?



Yes 283 65.2%
No 151 34.8%

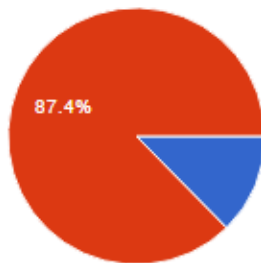
¿Sabías que las colillas de cigarrillo no se pueden reciclar?



Yes 276 63.6%
No 158 36.4%

Campus Verde Survey Results Hygiene and toilet paper. How to use it correctly in the bathrooms of RUM?

¿A dónde debes tirar el papel de inodoro si estás en un país en desarrollo donde no hay sistema de tratamiento de aguas negras o en un tren donde tiran los desechos a las vías?



Inodoro 102 12.6%
Zafacón (basura) 705 87.4%

¿A dónde debes tirar el papel de inodoro en Puerto Rico? Qué es lo más higiénico y lo mejor para el ambiente?



Inodoro	436	54%
Zafacón (basura)	375	46.5%

Los inodoros de UPRM se tapan si tiras papel de inodoro



	Cierto	318	39.4%
Falso (aunque a veces es necesarios bombear la cadena varias veces)		494	61.2%

Por el inodoro se pueden tirar colillas, bolitas de algodón, toallas sanitarias, tampones, papel toalla, medicinas, hilo dental y toallitas húmedas de bebé o de remover maquillaje.



Cierto	23	2.9%
Falso	785	97.3%

Campus Verde: Green Survey Results:

¿Es este tu primer año en el RUM?



¿Sabías que los enseres eléctricos siguen gastando electricidad estando apagados si permanecen conectados?



¿Desconectas los enseres eléctricos en tu oficina o salón cuando no los usas?



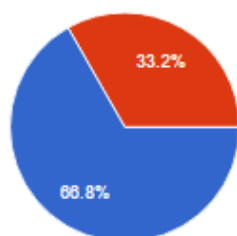
¿Reciclas tus latas y botellas plásticas en los envases de reciclaje del RUM?



¿Sabes dónde reciclar el papel y el periódico en el RUM?

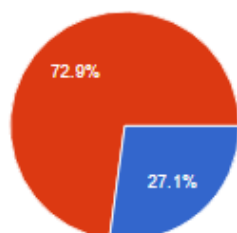


¿Imprimes usando ambos lados del papel?



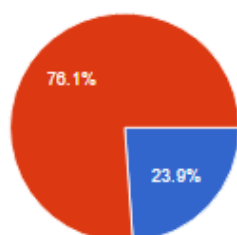
Si	474	66.8%
No	236	33.2%

¿Sabes donde disponer de cartuchos de tinta viejos?



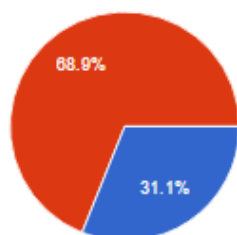
Si	193	27.1%
No	518	72.9%

¿Sabes dónde disponer de las baterías viejas para evitar contaminación de las aguas y la naturaleza?



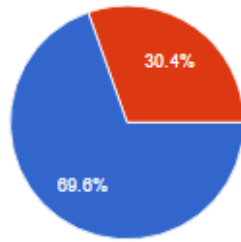
Si	170	23.9%
No	542	76.1%

¿Sabías que puedes ahorrar unos \$100 por cada batería recargable que usas?



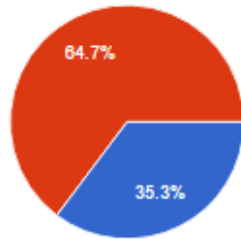
Si	220	31.1%
No	488	68.9%

¿Sabías que el comer carne aumenta la incidencia de varios tipos de cáncer, enfermedades del corazón y genera más gases de invernadero que todos los autos y camiones en el mundo?



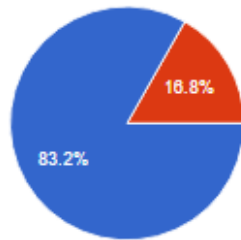
Si	492	69.6%
No	215	30.4%

¿Sabías que algunos alimentos contienen insectos o secreciones de insectos bajo el nombre de carmine (color rojo) y confectioner's glaze (o shellac)?



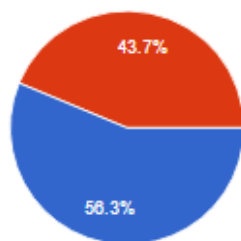
Si	249	35.3%
No	457	64.7%

¿Sabías que la mayoría de las bacterias son inofensivas o necesarias para una vida saludable?



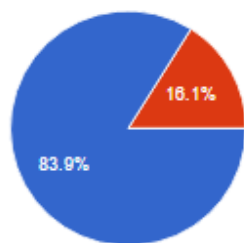
Si	590	83.2%
No	119	16.8%

¿Sabías que los productos anti-bacteriales hacen más daño que bien y que NO son necesarios para lavarse bien las manos?



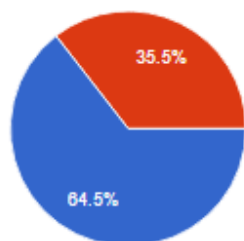
Si	400	56.3%
No	311	43.7%

¿Te gustaría que se re-establishiera el uso de vajilla de platos reusables (mejores para la salud) en la Cafetería del RUM, cancelada debido a la falta de cooperación de los colegas?



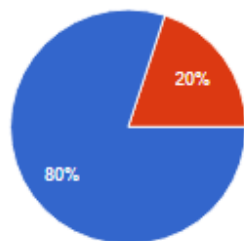
Si	596	83.9%
No	114	16.1%

¿Conoces el impacto ambiental que causan los platos de poliestireno (Styrofoam®)?



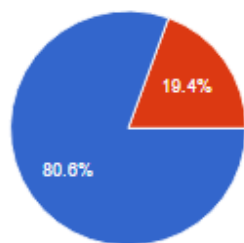
Si	456	64.5%
No	251	35.5%

¿Conoces los beneficios a la salud de la comida, ropa y otros productos orgánicos?



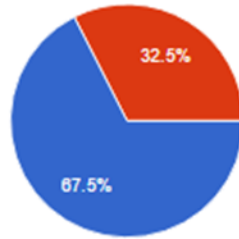
Si	565	80%
No	141	20%

¿Conoces el efecto adverso para el planeta de los productos que no son orgánicos?



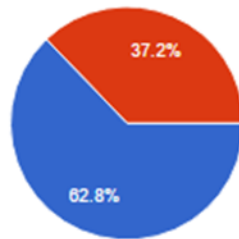
Si	572	80.6%
No	138	19.4%

¿Utilizas diariamente termos o botellas reusables para tu bebida cuando vienes a la Universidad?



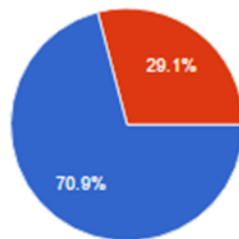
Si	480	67.5%
No	231	32.5%

¿Sabías que la mayoría de las bolsas plásticas están hechas de petróleo?



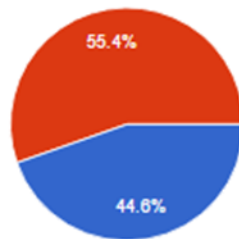
Si	446	62.8%
No	264	37.2%

¿Sabías del posible daño a tu salud de los productos enlatados y de las botellas plásticas?



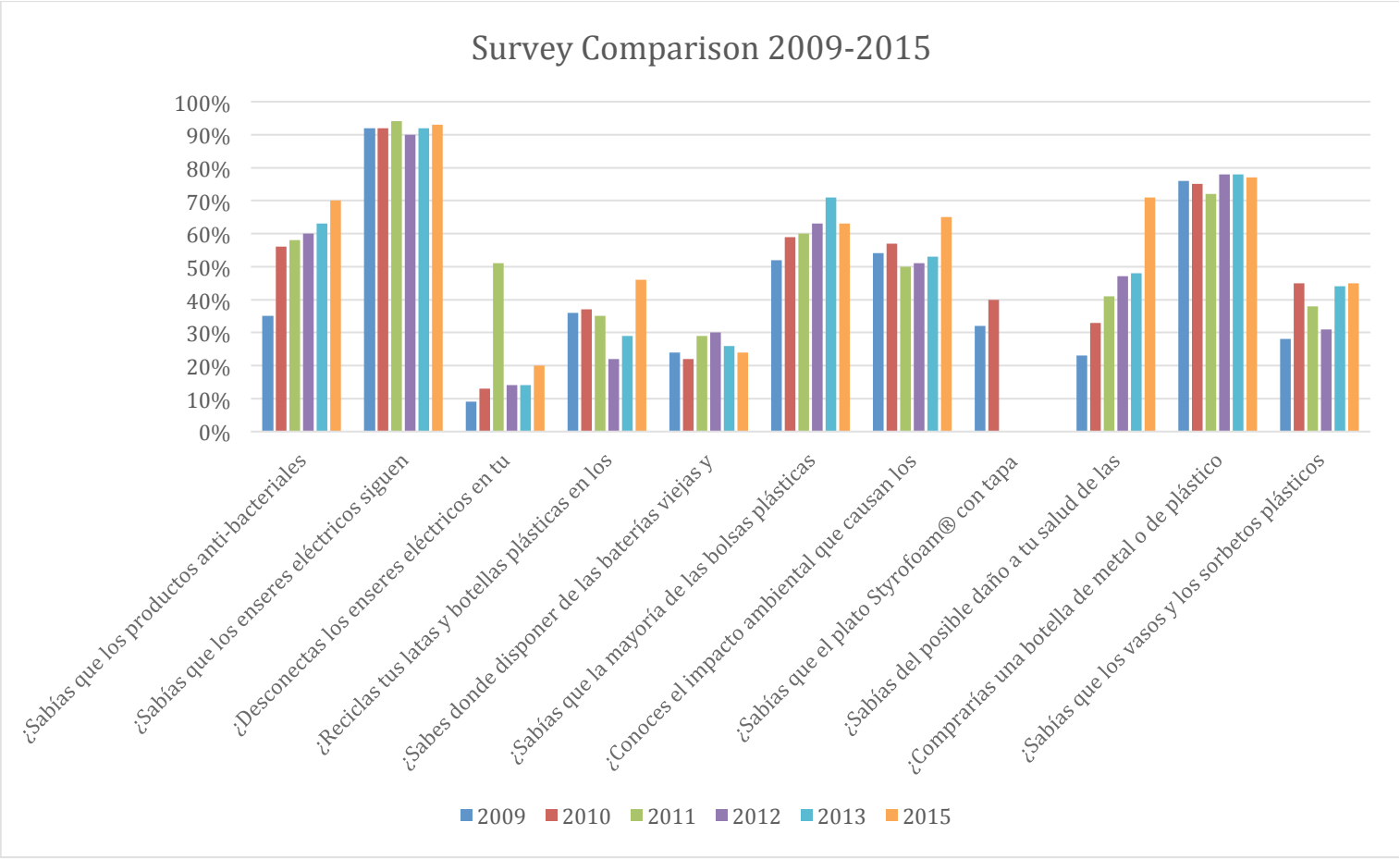
Si	505	70.9%
No	207	29.1%

¿Sabías que los vasos y los sorbetos plásticos NO se pueden reciclar?

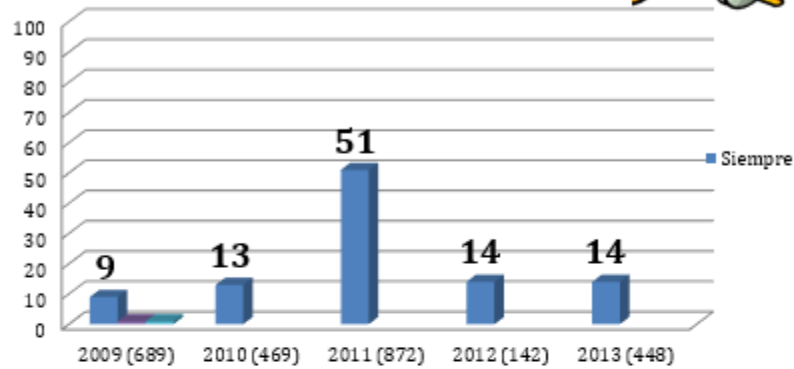


Si	317	44.6%
No	393	55.4%

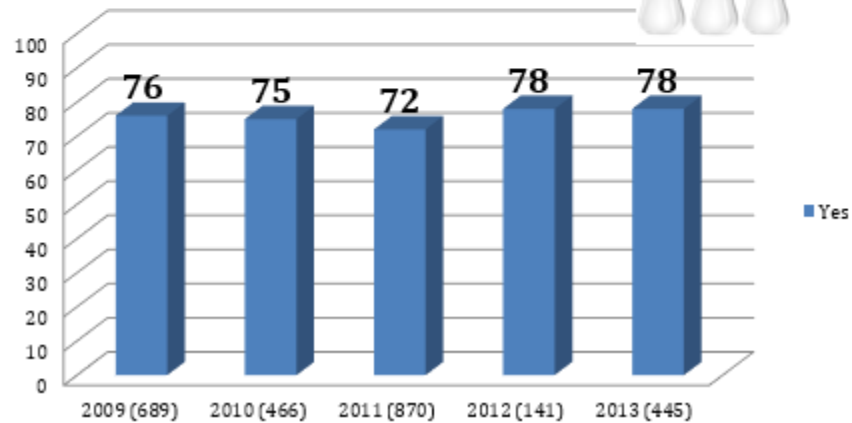
Green Survey Comparison 2009-15



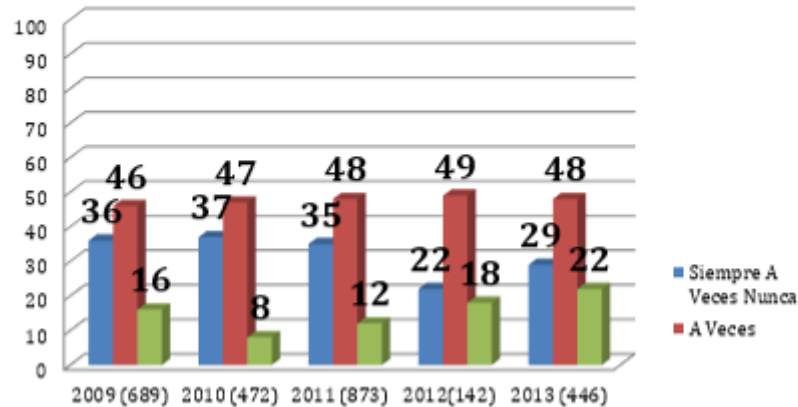
¿Desconectas los enseres eléctricos en tu oficina o salón cuando no los usas?



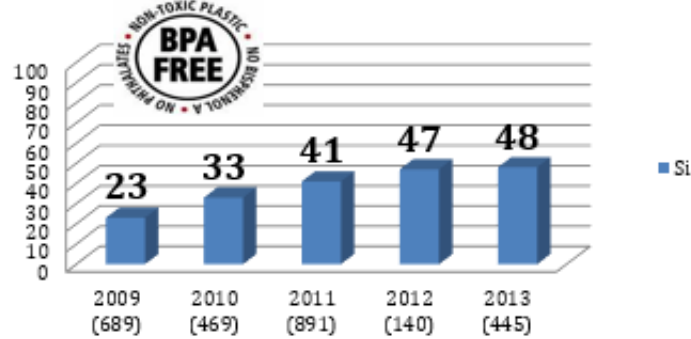
Would you buy a reusable BPA-free water bottle?



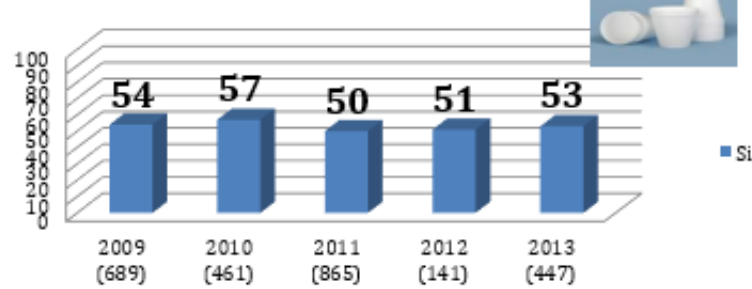
¿Reciclas tus latas y botellas plásticas en los envases de reciclaje del RUM?



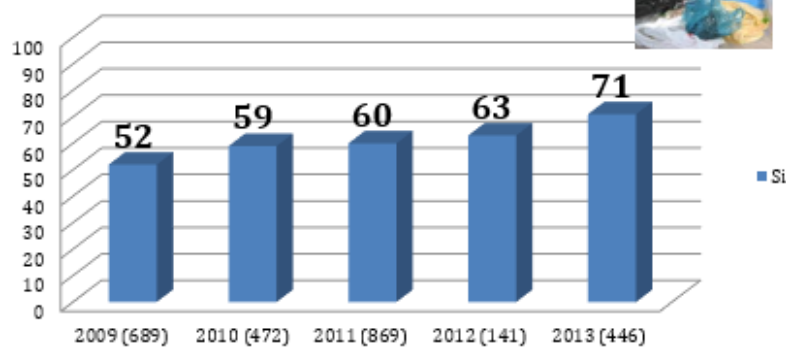
¿Sabías del posible daño a tu salud de las botellas plásticas debido a que contienen Bisphenol-A (BPA)?



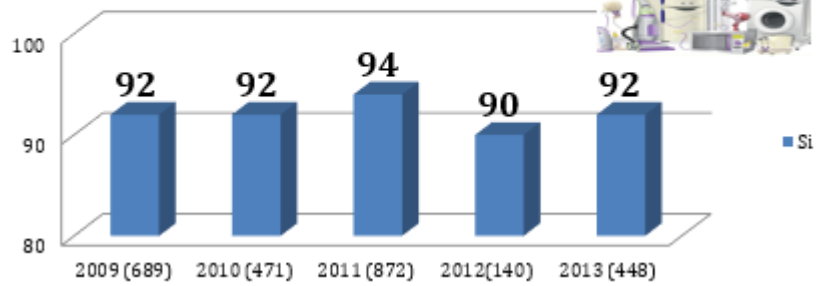
¿Conoces el impacto ambiental que causan los platos de poliestireno (Styrofoam®) al fabricarse en términos de tóxicos atmosféricos...



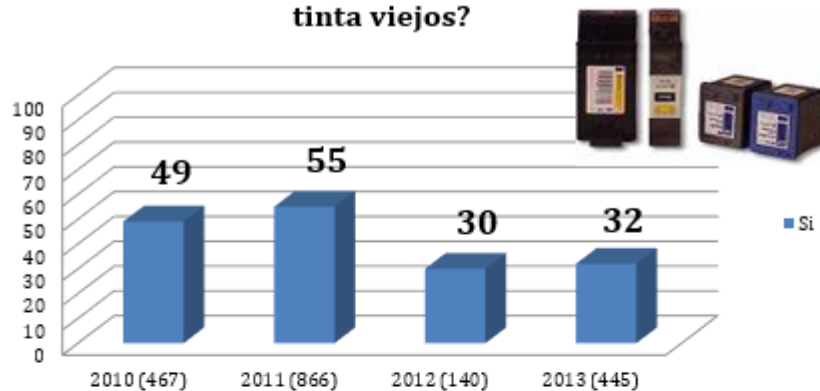
¿Sabías que la mayoría de las bolsas plásticas están hechas de petróleo?



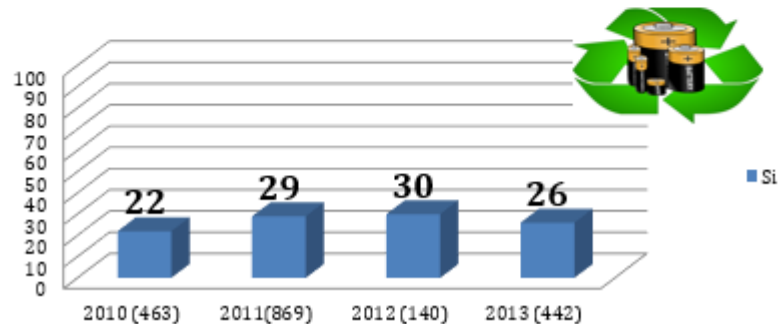
**¿Sabías que los enseres eléctricos siguen
gastando electricidad
estando apagados si permanecen**



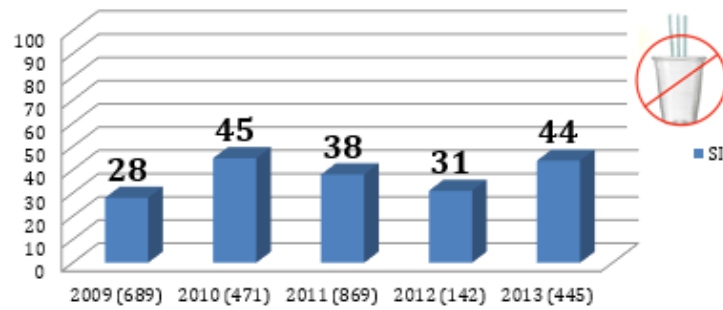
**¿Sabes donde disponer de los cartuchos de
tinta viejos?**



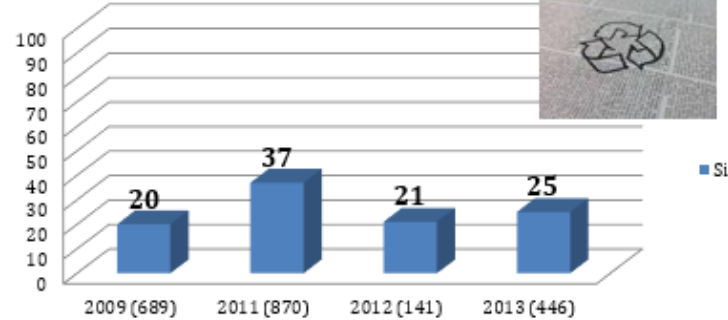
**¿Sabes dónde disponer de las baterías viejas para
evitar
contaminación de las aguas y la naturaleza?**



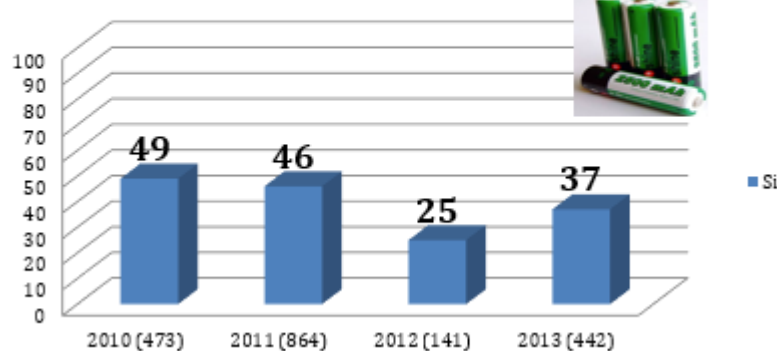
¿Sabías que los vasos y los sorbetos plásticos NO se reciclan porque no son plástico tipo # 1 ni #2?



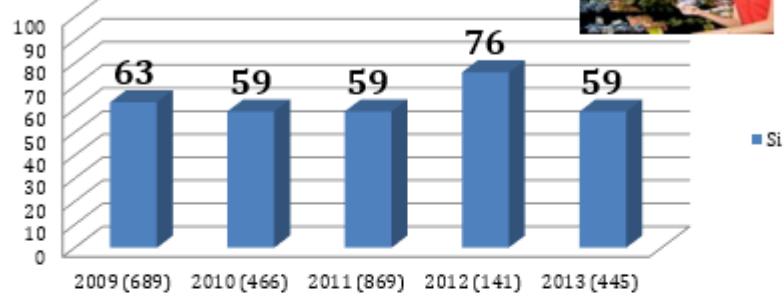
¿Sabes donde reciclar el papel y el periódico en el RUM?



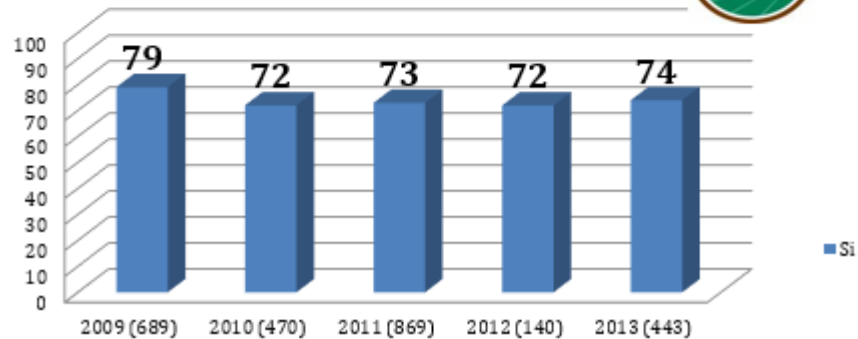
¿Sabías que puedes ahorrar unos \$100 por cada batería recargable que usas?



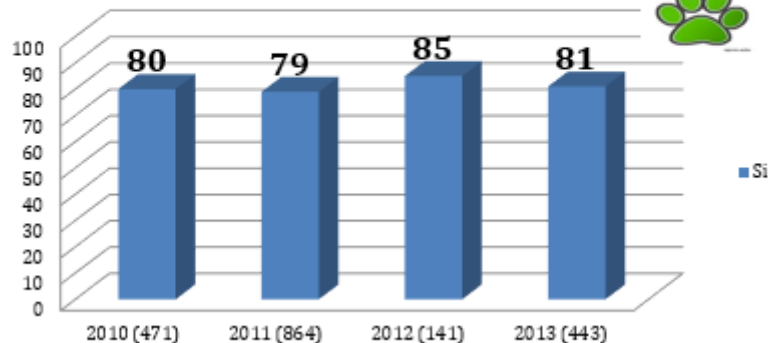
¿Conoces los beneficios a la salud de la comida, ropa y otros productos orgánicos?



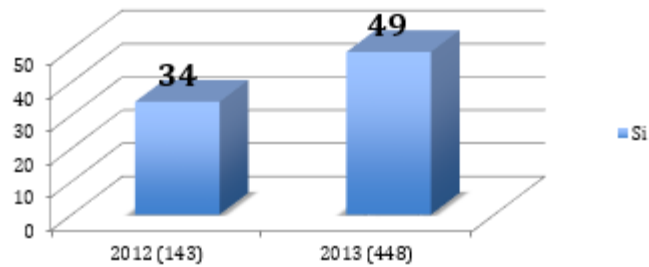
¿Conoces el efecto adverso para el planeta de los productos que no son orgánicos?



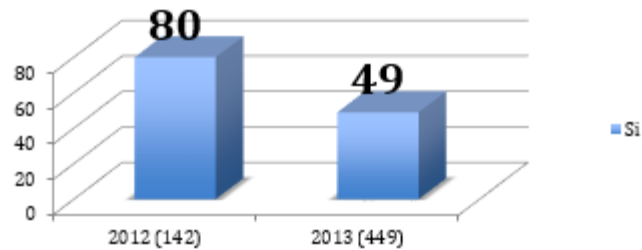
¿Te gustaría que se re-estableciera el uso de vajilla de platos reusables (mejores para la salud) en la Cafetería...



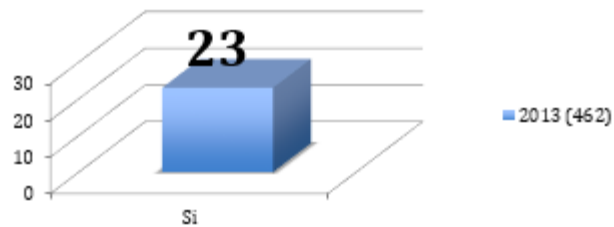
¿Sabías que algunos champús de bebé y productos de higiene y belleza contienen ingredientes conocidos como carcinógenos?

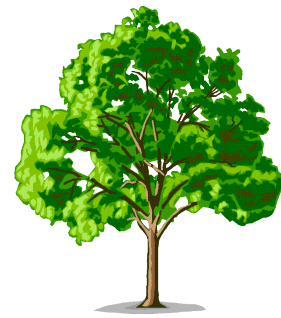


¿Sabías que la mayoría de las baterías son inofensivas o necesarias para una vida saludable?



¿Sabías que algunos alimentos contienen insectos o secreciones de insectos bajo el nombre de "carmine" (color rojo) o "shellac" ?





Política Institucional para la Conservación de los árboles y las palmas del Recinto Universitario de Mayagüez

Introducción

Gracias a la iniciativa de los miembros de la comunidad académica que a través de las décadas han sembrado plantas, y a la dedicación del personal encargado de cuidarlas, el Recinto Universitario de Mayagüez es hoy un atractivo jardín botánico donde crecen doscientas especies de árboles y palmas. Esta flora no sólo embellece el recinto, sino que con su sombra refresca los edificios. También atrae aves que hacen más placentera la estadía de empleados y visitantes. No menos importante, nuestra flora sirve de laboratorio para varios cursos.

Muchas universidades otorgan una alta prioridad a la conservación de su flora. Con el cuidado adecuado, nuestros árboles y palmas continuarán embelleciendo el recinto y beneficiando a futuras generaciones de estudiantes, profesores, administradores y visitantes.

Comité de Árboles

Se establece mediante esta política un Comité de Árboles compuesto por **tres profesores** nombrados por el rector, el decano de administración o su representante y **un miembro del Departamento de Campos y Carreteras** nombrado por el director de esa dependencia. Los miembros servirán por tres años, al cabo de los cuales podrán ser nominados para otro término similar. El comité establecerá las normas para su funcionamiento y evaluará cada solicitud de poda sustancial o corte en un plazo no mayor de tres semanas luego de ser notificados sobre la intención de realizar dicho trabajo. El comité evaluará cada solicitud teniendo como una de sus prioridades más altas la conservación de los ejemplares y la protección de los miembros de la comunidad académica y de la propiedad pública y privada. El Director de Planta Física y su personal están para “implantar y ejecutar” las medidas a tono con la Política Ambiental de la UPR, de la leyes que administra Recursos Naturales y de la política interna que se apruebe para el manejo preventivo de la flora del RUM. Adjunto ver copia de la *Política de Manejo de Áreas Verdes de la UPR* Comité de Árboles del UPRM es el que debe tener la decisión final sobre el trabajo a realizarse.

Mantenimiento de los árboles y las palmas

El Departamento de Campos y Carreteras establecerá un plan para la remoción anual de plantas epífitas y parásitas que por su abundancia reducen la salud y buena apariencia de los árboles. El Comité de Árboles identificará estas plantas para que sólo se remuevan las que ocasionan daño. Esta actividad evitará que el árbol se debilite o muera y tenga que ser removido. Durante el mantenimiento rutinario de los alrededores, el personal de mantenimiento tendrá especial precaución con el uso de cortadoras de hilo (**trimmers**) que pueden remover la corteza y matar ejemplares jóvenes.

Mitigación por la remoción de ejemplares

La remoción ocasional de un árbol o una palma por razones justificadas será mitigada mediante la siembra de diez ejemplares similares cerca o en otro lugar del recinto. Si no es posible conseguir la misma especie o si ésta es común en el recinto, el comité recomendará otras especies adecuadas para los lugares donde serán sembradas. Este proceso de mitigación puede **aprovecharse para aumentar la diversidad** de especies que crecen en el recinto.

Siembra de ejemplares

La administración universitaria coordinará con las asociaciones estudiantiles la siembra periódica de árboles y palmas en lugares propios para dicha práctica. El Comité de Árboles asesorará en la selección de especies para asegurar que no se siembren variedades que más tarde puedan causar problemas por su impacto sobre personas o propiedad. Por esta misma razón los miembros de la comunidad académica que deseen sembrar árboles o palmas deberán solicitar permiso al Director del Departamento de Campos y Carreteras y recibirlo antes de realizar la siembra. Los árboles y las palmas sembradas sin permiso podrán ser removidas si a juicio del Comité de Árboles han sido colocadas en un lugar inapropiado para la especie o en un lugar que ha sido destinado a otro uso.

Cultura de conservación

Para que esta política sea exitosa es necesario crear conciencia en la comunidad académica sobre la importancia que tienen los árboles y las palmas, además de los arbustos y otras plantas que crecen en el recinto. Con este propósito, el Comité de Árboles, la administración universitaria y las asociaciones estudiantiles coordinarán **actividades que eduquen e integren** la comunidad a este esfuerzo.

