This report includes the activities by the Campus Verde Initiative which is constituted mainly by students guided by faculty through the proposal to the National Wildlife Federation with matching from UPRM.

Presented by Dr. Sandra Cruz-Pol, Campus Verde Coordinator.
Sept 2010
I. Reduce, Reuse and Recycle

1. Recycling stations acquisition has been approved by the administration. Selection of the appropriate model is in process and the order was placed in January 2009.
2. Negotiation with the cafeteria administration is in process so that the staff will collect recyclables and place them in the proper pick up area (This was previously done by the students) and acquisition of reusable tableware is in process, to avoid usage of disposable tableware. Implementation of both is expected during the first half of the spring 2009 semester. The cafeteria has agreed to use permanent dinnerware instead of Styrofoam and is waiting for the administration to finish the plumbing work necessary to install the washing machine.

3. Hand Dryer price quotes have been received and the best 3 models will be presented to the administration on January 2009.

4. To educate the community about recycling, posters were placed around campus during the spring 2009 semester.

A. Recycling stations

5. We received the 10 recycling station each with 4 material receptors. They will be distributed around campus soon. We ordered 2 more. In addition the Tau Beta Pi, (honor engineering society) student association will order two more, for a total of 14 stations.

B. Supporting Recycling during Campus Activities

From March 31 to April 4 was the Agricultural Science Faculty Fair “5 Días con Nuestra Tierra” (Five days with our soil). During this week a recycling program was implemented at the fair’s grounds. We placed the recycling containers around the fair, collected the recycling and put them in the recycling center and made announcements by the stage microphone about the importance and the right way to recycle.

Also during the Relay For Life activity at campus on May 2-3, the Campus Verde initiative coordinated the recycling events and distributed a Recycling flier to each of the 20+ participating teams.

C. Hand dryers

1. To reduce the use of paper towels, hand dryers were placed at the Student Center bathrooms and at the Stefani Building (a heavily transited Lobby area). We bought two models in order to compare the electric consumption before ordering more.
D. New Paper-Use Policy

A group of UPRM personnel met last year to delineate a draft of a paper Use Policy for the university. The idea was to promote the wise use of resources, saving paper and using electronic means as far as possible. The draft of the Policy was handed to the Dean of Administrative affairs last August, but unfortunately it has not yet been implement. See Appendix C for draft.

II. Promote Bicycle Transportation

A. Ride a bike! Campaign

1. Inventory of bikes and bike racks throughout campus:

   The objective of this inventory was to know the quantity of bikes and bike racks in the university to have a better understanding of the situation. Campus was divided into four zones. A team of 2 students made the inventory in one of the four zones. A total of 8 students made the inventory at two dates (1: Monday or Wednesday and 2: Tuesday or Thursday). We found interesting results. 1) An average of 120 students comes in bicycle to the university daily. This is less than 1% of a total of 13,000 students. We want to reach to 1% and increase the users to 2% (an average of 260 students daily) in 6 month. If an increase of 1% every six month is obtain, a 10% (about 1,300 students) of the student community will be coming to the university riding a bike. 2) About 12 racks were out of place and needed to be relocated somewhere else. 3) The majority of the racks had an efficiency of less than 50%. 4) One of the zones had the highest number of bicycles (74 bikes daily). We recommend two bike racks stations (about 10 racks/station) in this area.

   • Ride a Bike is a student organization born in this project

We had a very strong Education and Outreach component. Examples of those activities are:

   • ”Sal del Tapón” Campaign (Get out of traffic jam activity): Students riding bikes called the attention of people stuck in a traffic jam by showing a poster with different messages such as 1) Save Gas, Save Money, Ride a Bike, 2) You always find a parking... Ride a Bike, 3) It is good for your health, etc.

   • “Bicicletada Pro-Ambiente” (Two Bike Marathons Pro-Environment): Students and employees united in a bike marathon inside the campus.

Our activities were so creative and unique that the local community showed great interest. When riding a bike and transmitting a message, people smiled and agreed with us. On the Global Warming Conferences, we received so many requests for talks that we had to train 60 students so that they can go all around the island giving that conference.

Racks at full capacity

Racks out of place
2. **Survey to find the most common means of transportation:**

The objective of the survey was to identify the most common mean of transportation and to create awareness of using bicycles as a mechanism to reduce traffic and contamination. A survey to the entire college community through the university web mail was performed. This survey was online the last 3 weeks of classes in last semester. Almost 1,000 people answered the survey and we found interesting results. About 60% and 30% of the surveyors prefer to ride a car and walk to the university, respectively. From that 60% (600 people approximately) half of it (300 people) come alone in the car. More than 90% agreed that riding a bicycle can reduce traffic in the university. We are going to make a deep analysis of the survey. Then prepare a report with graphics on the findings and results. Finally, we will publish that report at the Campus press.

**B. Proposals directed to the Dean of Administration (Lic. José A. Frontera Agenjo) and Director of the Department of Buildings and Terrains (Engineer Roberto Ayala Ríos):**

1. **Proposal 1: Relocation of the bike racks and establishment of two bikes stations**

   **Objectives:**
   1) Increase the bikes users.
   2) Relocate bike racks to a more transit able and accessible place for the users.
   3) Establish two bike racks stations.

   We used the results of the inventory of bikes and bike racks for the proposal. At the end of the semester 4 bike racks from Espada Gym were mobilized. We will continue monitoring those racks that were not relocated. One of the bike racks station was initialized. More bike racks were mobilized to this place (University Library). The other rack station has not yet been installed. But, we will begin the installation process during this semester. After all racks are settled at the right place, another inventory will be carried out after six month to check if we reach 1 or 2% usage and decide how many additional racks are necessary.
2. Proposal 2: Installation of a bike garage for basic mechanical problems

   Objectives:
   1) Increase the bikes users.
   2) Install a bike garage for basic mechanical problems for Campus's users.

We used the results of the inventory of bikes and bike racks and the preliminary results of the survey for the proposal. We received a positive response by the Director of the Department of Buildings and Terrains for locating the mechanic bike garage in a place at the official transportation garage. At the moment we are waiting for the response of the Dean of Administration. We expect a response on this topic during the 2009 semester. We will make efforts in order to obtain a place for this bike garage. We believe that having a place to repair bikes will make students more confident on riding bikes.

C. Activity share with your Ride a bike team:

   A group of five students spend the morning together riding bike and enjoyed a great pizza.

1. T-shirts for promotions and collecting money:

   The shirt has the following message: HEALTHY PLANET, HEALTHY LIFE RIDE A BIKE! It also has an art of a person riding a bike.

   We made t-shirts for promoting the use of bicycles. Even though our main focus is to bring a message of consciousness, we also make some profits out of selling the shirts. The money will be used to further promote bike use within campus.
D. Future goals:

- We are planning to create a student club for students who ride bikes for promoting this way of living.
- We will do a bicycle marathon at the university during the universal hour to call the attention from everyone.
- “Primera Bicicletada Pro-Ambiente” (First Bike Marathon Pro-Environment):
  Before the bike marathon we did promotion by making two informational and promotional tables on the Student Center. Here we gave to students flyers with the benefits of riding a bike and the bike marathon information (including date, place and time of the activity), we sold shirts with the Ride a bike! Logo and sold raffles for the bike donated by Wal-Mart. This activity was done on March 5th with the collaboration of the Office of Calidad de Vida (Quality of Life), Campus Verde, and the University's Police. It was a success because there was participation of 15 people (including student and staff) who committed on riding bikes instead of cars. Also, the press was present too! The channel TuTV transmitted the bike marathon at the 6:00 p.m. news and the University's press interviewed students and staff who participated. At the end of the bike marathon, the bicycle donated by Wal-Mart was raffled.

1. Ride a bike! Student Organization Installment

   The group of students and staff who promote the use of bicycles wants to become an official organization of the university. We are establishing the Rules and Regulations including the Mission, Vision, Objectives, and the Board (President, Vice-President, Secretary and Treasurer) of the group.

2. “Foro Colegial” (College Forum)

   This was a 30 minutes radial program about the importance of riding bikes as mean of transportation on and off campus. Two students (Florence Rodríguez and Axel Ramírez) were interviewed on this topic. They talked about the initiative of a group of students who want to promote the use of bicycles,
how this became part of the National Wildlife Federation project, how the Administration, Staff, and other student organizations are involved, and all the activities the group wants to accomplish from promoting the use of bikes, adding more bike racks to creating bike lanes.

3. “Primera Bicicletada Pro-Ambiente” (First Bike Marathon Pro-Environment) News Report by Campus Press:
On March 5 was the 1st Bike Marathon Pro-Environment on Campus. A news report for this activity was done by the University Press on April. The location of this news is [http://www.uprm.edu/news/articles/as2009055.html](http://www.uprm.edu/news/articles/as2009055.html)

Bicycling around the towns Mayagüez and Rincón

Departing from our campus, on November 11, we rode bikes around the Mayagüez Town. The purpose of this activity was to be seen by the people in town and promote the use of the bicycle for transportation in the city.

On Saturday, November 14, 2009 we went bicycling around Rincón exploring the town with a local member of Ride a Bike. We stepped by several beaches and visited some of the town’s main attractions including the Light House.

a) **Showers**
We identified shower facilities on Campus and its schedule. Main shower facilities are located in the first level of the Mangual Coliseum. The open hours are from 6:45 a.m. to 9:00 p.m. Also, there are two separated facilities for men and woman in the Biology building. This information will be send to the campus community for the benefit of those who may need to shower because of getting on Campus by bicycle.

b) **A place for air and basic maintenance**
We met with Eng. Ayala, the engineer in charge of the Lands and Buildings section in campus, to follow up on the habilitation of a place for basic bicycle maintenance and regulated air. This collaboration will support and promote the use of the bicycle for transportation on Campus.

c) **Bicycle paths On- and Off-Campus**
We met with a professor of the Department of Civil Engineering who specializes in transportation. He gave us some ideas to promote the use of bicycle on campus and the surroundings. He also recommended us to contact a student association of the Department of Civil Engineering. We are going to collaborate with this association and will unite efforts for creating bicycle paths.

E. Participation at the “Yo Comparto La Carretera” (I share the road) Campaign:
Two members of the Ride a bike team (César Rivera, elected president of the organization and Axel Ramírez, founder) participated at the “Yo Comparto La Carretera” (I share the road) Campaign on May 3rd at Old San Juan. This activity was done by the Federation of Cyclists of Puerto Rico and the
Interamerican University. The purpose of this activity was to create conscience about the Law 22 and to promote the concept of sharing the road by the car users and cyclists.

III. Energy Conservation and Efficiency

After meeting with the administration and presenting many ideas, one of the agreed upon ideas is that four solar LED light posts will be purchased and located in frequently transited areas of the university. This will be a pilot project to see how they perform before acquiring additional posts the following years. In addition, under the Energy Conservation resolution, Campus Verde is taking advantage of the various LCD screens found in the cafeteria to plug certain energy conservation/recycling tips that will benefit the environment and the students. Since the cafeteria is highly transited, this method of communication will be very effective for the campaigns that will begin taking effect in the following semester.

A. Four Solar LED lighting posts

Two large and two medium LED SOLAR lighting posts were ordered to be placed on the student parking lot and the Entrance of the UPRM Coliseum (total cost $13,000), respectively. The first two LED Solar post are scheduled to be installed before the 2009 graduation ceremony early June. This is part of a pilot program to evaluate the performance of these solar LED lighting before we can extend it to all the campus.

B. New Committee established at UPR for the Conservation of Energy

This new committee was established with the objective of reducing the energy consumption of UPRM by 10% in one year. It is lead by Dr. Lionel Orama at all UPR eleven (11) campus, and by Eng. Wilson Ortíz at UPRM campus. Campus Verde is collaborating with them and providing resources to buy LED light tubes for illuminating one building as a pilot program that could extent to the rest of the campus. We have allocated $1000 for this purpose.
IV. Nature Activities

A. Beach Clean-up Days

A cleanup has already been realized during the month of November 2008 at a local beach (about 15 minutes from the campus) in the “El Seco” community which totaled to an approximate 15 trash bags, almost 500 gallons, of garbage which even included a dead manta ray found at the shore. With 15 students participating, the materials were brought by the participants themselves. It has been decided that the “El Seco” beach will be our adopted beach for continued clean-ups. An agreement was established with the municipal Solid Waste division for continued picking-up of garbage at each clean-up. The next cleanup is scheduled for February 2009 where we are hoping to count with more participants.

We had three Beach Clean-up activities; here are pictures from Jan 31 and other on Mar 28 at Playa El Seco, Mayaguez
The beach cleanup scheduled for March 28 with the Hispanic Society of Professional Engineers (SHPE) was not realized due to conflicts with study regime with the plans of rescheduling. The cleanup was ultimately realized a month later on April 19 in collaboration with Tau Beta Pi (Honor Society of Engineers) and with an open invitation to the general student community. Approximately 15 volunteers participated in the activity. Fifteen trash bags were filled and tires were recovered, but the amount of garbage found seems to be diminishing.


### B. Saving Corals

Over 20 Campus Verde students had the opportunity this summer to work with an international team of experts in aquariums and marine biology in the SECORE (Sexual Coral Reproduction) Expedition 2009 in collaboration with Surfrider Foundation. The goal is to help corals reproduction for a species in danger of extinction. [secore.org](http://secore.org)  See photos at:

Team of 23 UPRM students and researchers from the SECORE project at Rincon Beach, PR. Coral larvae is deposited on the right tanks to help in their reproduction. Elkhorn coral is in danger of extinction.

*Gozalandia* Waterfalls Clean-up Day

This past 11th of October, our group coordinated this clean-up event for two of the three waterfall system called Gozalandia in the town of San Sebastián. We had 22 students participating including 2 from a nearby campus of UPR-Aguadilla and one student’s parent. We collected 25 large garbage bags including 5 of recyclable materials. See photos at [http://picasaweb.google.com/UPRMfun/LimpiezaGozalandia#](http://picasaweb.google.com/UPRMfun/LimpiezaGozalandia#)

This activity was done in collaboration with UPRM chapter of PRWEA, NUPA, and IEEE. One of the waterfalls is the one that appears in the movie Perfect Getaway.
C. Campus Reforestation

With a plan to blossom the campus with 100+ plants for the attraction of various wildlife as well as shade for student enjoyment and lessen energy necessities for adjacent building cooling, we have begun a process of investigation and dialogue with campus administration. The project has established a relationship with the campus agricultural expert in charge of Building and Terrain, Agr. Nelwin Gonzalez. The help of a tree inventory of the campus realized by a biology professor at the campus, which includes some 200 species, is also being utilized for information purposes. Approaches are being made for the planting to occur in the wet months, August-October. The Department of Natural and Environmental Resources has also agreed to collaborate in the donation of an unsaid quantity of native trees.

In collaboration with other student groups PRWEA, we had a Tree Planting on Jan 31 where we planted 20 trees in campus. An additional 100 trees will be planted during the activities planned for April and during the summer.

The second phase in the Campus Reforestation project was realized as part of Earth Week activities on April 23rd. Thirty (30) trees were planted, all native and some endemic, all donated by the Department of Natural Resources. These were placed at the foot of a recently constructed exercising pathway with the purpose of giving shade to its users. The invitation was open to the general student community therefore receiving support from different departments. Twenty students participated. The activity was closely supervised by Horticulture Dr. Lizzette González who trained the attendants on correct transplanting processes and appropriate care. Afterwards, an irrigation calendar was prepared where turns were rotated for an assured two weeks of appropriate growth. Luckily, however, Spring rains began that day and continued for a week and a half, where the calendar was not even needed. The next phase in this reforestation project will take place in August.
Tree Planting

On September 30, 2009, a 50-bushes planting activity in the shape of the numerals 350 was done by the student parking area with the sponsorship of LM Company at UPRM. This was done in anticipation of the celebration of the **International Day of Climate Action** (Oct 24, 2009) where emphasis was placed on the number 350, the level of CO\textsubscript{2} concentration in the atmosphere we have to go down in order to stabilize our climate. We coordinated their Green Day this day, wish included this planting, a talk by our advisor on **How to Fight Climate Change**, a movie about human impact on the planet (titled The Story of Stuff) and an eco-friendly dinner.

New Student Organic Orchard

This initiative came from Campus Verde’s students from agricultural sciences. Last October 30\textsuperscript{th} the students started the Huerto Ecológico (or organic orchard) at a field in our campus. They follow organic practices by using only compost and no chemicals. This was in collaboration with the AEA (Asociación de Estudiantes de Agricultura).

V. Purchasing Recommendations

A. Green Cafeteria

Conversations with the cafeteria management proved successful as they listened and agreed on many of the concerns presented. With the help of Cafeteria director, Víctor Sánchez, a complete set of dinnerware and silverware (plates and utensils) will be purchased thus diminishing the use of Styrofoam greatly. They also presented their initiative to introduce a new, healthier, and organic section in the cafeteria for the students. These initiatives should start in the following year. With the help of the UPRM Administrative Affairs Dean, Lcdo. José Fronteras order for the necessary plumbing materials have already been placed. We will be monitoring the situation very carefully.

The recycling in the cafeteria has so far been very successful. A group of approximately 20 students have been rotating and working together to make sure the recycling program continues progressing. An average of four large bags of aluminum cans and plastic bottles are being recycled each day.

B. Organic T-shirt design and promo

We have met with the school store and made an agreement for them to sell organic shirts. The shirts are simply the beginning of talks of having a "green section" in the store, where students will have a variety of "green" options to choose from.

Reusable bags are in the process of being ordered and sold with the university logo and hopefully, we will continue expanding this "green" section in the school store with new, useful products for the students to purchase. The cafeteria has been using less polystyrene foam trays and more paper alternatives; but plates, utensils and a dishwasher have been ordered and will soon be installed.

C. Bisphenol-A free Cup picture and promo

The school Bookstore is currently selling "green" products, besides the organic T-shirt shown above. A 17 oz. BisphenolA-free cup is also being sold. It will is being promoted with the intention that students use it in the cafeteria with their beverage of choice. The Cafeteria has agreed to honor the price of a 16 oz. beverage when using the 17 oz cup.
VI. Education and Outreach

The organization of the 2-day Global Warming Solutions Symposium was done mostly by students in which 5 professionals offered conferences about a wide range of environmental subjects such as proper composting, climate change, Methane sequestration, recycling, biodiversity, organic farming, among others. We will emphasize on “green” engineering for the stimulation of future professionals.

A. Training for students and personnel about Global Warming Solutions

We have and will continue offering the training given once a semester for 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. UPRM cleaning staff (conserjes) received a 5 hour workshop on Global Warming and the importance of Recycling.

B. Other Outreach Activities

Throughout the year we have offered numerous conferences, talks, activities, workshops and games inside and outside campus to create awareness about environmental issues. The list is too long, so we refer you to a list of previous activities which can be found at http://campusverde.uprm.edu/EventosVerdes#Eventos_Pasados:

1. Eco-friendly Tips Campaign for education & awareness:

Fourteen types of posters- fliers and LCD display at Student center, each printed with a different Factoids about energy and resources conservation, recycling, battery disposal, etc. http://ece.uprm.edu/~pol/factoids/

First, we printed the 140 (8”x11”) poster-stickers with eco-friendly tips (or factoids) and distributed all around campus. We just ordered another set of 140 poster-stickers to increase our campaign, for a total of 280 posters around campus. The use of newly installed LCD screens in the student center will be taken in advantage to announce future project activities and living green tips. A 4’x5’poster which summarizes these tips is presented below and was installed at the Campus Bookstore.

Funding and Resources
The entire project was done thanks to internal and external funding. The internal funding was $5,500 for 10 recycling stations, $54,000 for reconstruction of Solar House (space for Campus Verde's office in the future, hopefully will be completed this year), $13,000 for 4 solar LED light posts, 3-credits (1/4 load) compensation to Dr. Sandra Cruz-Pol to work as coordinator and advisor of Campus Verde activities. The external funding comes from donations from General Electric (CFL light bulbs given at conferences and $1000 cash for activities), Rock Solid Inc, (400 reusable foldable nylon shopping bags to give to the participants at different activities), Lockheed Martin (pledged $1000 for activities and gifts to give away at activities), Snapple (10 bottle recycling containers in the shape of a Snapple bottle). All the presents were used to attract more people to our eco-cinemas, symposia, conferences, and other activities that created awareness.

2. Eco-Chef

Also, a vegetarian chef, Olga Torres, was invited to an activity called Eco-Chef realized on November 18th, 2008 where she offered campus students information on how food choice affects our ecosystem as well as fresh ideas to apply in the kitchen when preparing your vegetarian meal.
3. “Eco-manjares” (Eco-Delicacies)

This activity had the participation of 10 different natural/eco-agriculture businesses, music and a talk about the importance of eating eco-friendly. The students had the opportunity to taste eco-friendly food, including many vegetarian dishes, organics local juices, desserts and more. We had the participation of Radio Colegial (UPRM Radio show) which provided animation and transmitted the show (life Bomba Plena Music and Talk) on radio and internet. In addition we had the participation of UPRM Quality of Life and Campus Verde awareness tables. Many students danced to the music and we had coverage from the TV station TuTV. Dr. Sandra Cruz-Pol, coordinator of UPRM Campus Verde initiative was interviewed about the activity.
4. **Talks about Global Warming and Solutions**
   Training for giving, the talks about global warming and solutions students that pass a test will receive a certificate so they can give talks about these topics. Thirty students and 3 faculty participated and passed the test. Only two people didn't pass.

5. **Mural Painting at the Campus Bookstore**
   We obtained permission to paint a mural in the entrance of the Bookstore about Campus Verde and also to post a large poster with 12 eco-friendly tips about how to save money and help the environment.

6. **Web Photo Album**
   Photos from all activities are being posted at: [http://campusverde.uprm.edu/album.html](http://campusverde.uprm.edu/album.html)
7. Television and Radio Appearances about Global Warming Solutions

A group of students from Ride-a-Bike were interviewed for 30 minutes by radio, the advisor Dr. Cruz Pol appeared on several radio interviews of up to an hour, and on three TV shows on Univision (3 minutes and was retransmitted several times), Telemundo (3 minutes), and WORA TV (30 minutes and was retransmitted several times).

8. UPRM Library resources

Campus Verde has recommended several resources to the university library such as dvds and they have ordered and have available the resources for the students to use.

In fact, as part of the EarthWeek celebration, we organized a Green Movie “Cartelera” in which we showed documental (e.g. Killowatts Ours, An Inconvenient Truth, Who killed the Electric Car?) at the Cueva de Tarzán Campus café.

C. Parade during the Earth Week

The parade for the Earth Week was organized in collaboration with other student organizations (such as Campus Verde, SEPCO, Tau Beta Pi), the office of Calidad de Vida and Department of Horticulture. These teams worked with the music, participation of children, recycle containers, campuses a hybrid cars, an electric car, etc. This year (2010) is was done for the second time.
Banner from the Office of Quality of Life at EarthWeek Parade

Banner from the Future Agricultures of America UPRM chapter at EarthWeek Parade
1. **Earth Week Parade**

We organized the parade to initiate Earth Week with other student organizations (such as Campus Verde, CEPCCO, Tau Beta Pi Department of Quality of Life and Department of Horticulture) and it was a success. There was participation of the Rector Jorge Iván Vélez Arocho, student organizations, children from the Universities' Day Care and even our mascot "Tarzán". We walked around campus with the typical music “Bomba y Plena”, the “Sancones” (giant look alike), and banners with positive messages. We also had hybrid cars, recycling containers, and the Ride a bike team was promoting the use of bicycles! There is a news report of this activity at [http://www.uprm.edu/news/articles/as2009074.html](http://www.uprm.edu/news/articles/as2009074.html)
During the Earthweek there was also a Seed Interchange at the campus cafeteria.


2. Earth Concert- April 21, 2009

As part of giving a message of conscience during the Earth Week, two rock bands and a duet of reggae express their concern through music.

Rock Band: Out of the Blue

Reggae group: Movimiento Campesino
D. The 3\textsuperscript{rd} Symposium Collegial Eco-Conscience

The 3\textsuperscript{rd} Symposium Collegial Eco-Conscience took place on April 14-16 as preview to the Earth Week activities. A total of five professionals of diverse vocations were able to converse about their role in the current environmental situation. Speakers included an apiculturist, an architect professor, an electrical engineer, a marine biologist and even a candidate running for governor. Attendees totaled to an approximate of 150 students and professors between both days. **LED light bulbs** or **reusable bags** (courtesy of Rock Solid Inc) were given as gifts to the first eighty (80) attendees. Gift baskets for the speakers included local organic produce, homemade soap, and an organic shirt in a reusable bag (donated by a local company Rock Solid Inc). The activity was covered by the Campus Press and by local news TV Channel where both attendees and speakers were interviewed. 

http://www.uprm.edu/news/articles/as2009074.html

Sample of Conferences sponsored by Campus Verde

- **“Renewable Energy”**
  
  Dr. Jefferson W. Tester, MIT [ppt][pdf]
  Departamento de Ingeniería Química

- **“Ecofeminismo y los discursos ecológicos en las humanidades”**
  
  Dra. Serena Anderlini, UPRM
  Departamento de Humanidades
| **“Puerto Rico, isla del “en-canto”**: Fragmentación de nuestro entorno isleño** |
| Dr. Carlos Delannoy, UPRM [pdf][2MB] Departamento de Biología |

| “Sustainable Energy @ Puerto Rico” |
| Dr. José Colucc, UPRM [pdf][pps] Departamento de Ingeniería Química |

| “Índice de bienestar económico” |
| Dra. Ivonne Díaz Rodríguez Dr. José Alameda, UPRM [pdf][pps] Departamento de Economía |

| “Oportunidades y retos en el reciclaje de materiales” |
| Dr. Iván Baigés, UPRM [pdf][pps] Departamento de Ingeniería General |

| “Lessons from ecology for the future of Puerto Rico: Implications for land and resource use” |
| Dr. Skip Van Bloem, UPRM [pdf] Departamento de Agronomía y Suelo |

| ReVerdeSiendo al Colegio |
| Campus Verde y Sr. Roberto Torres, UPRM Salud, Seguridad y Ambiente |

| “Ecología Humana: Consumismo en la sociedad del tener vs. el ser” |
| Dr. Luis Colón, UPRM Psiquiatra |

| **TV appearance** |

Our advisor was interviewed in another TV show (WORA TV local station), where she talked for half an hour about energy efficiency, the rechargeable batteries, Bisphenol-A free reusable water bottles and much more. The ½ hour segment has being aired at least 5 times already!

| **Student Training** |

This semester we offered another student training like previous semesters and all 32 participants passed the training test. Among those attending were two elementary teachers that learned about the training through Facebook Event and asked permission to attend. They were very pleased with the activity and said they would apply concepts at their schools. The participants had a sandwich lunch covered by us. This activity was done on the 6th of October.
EcoCinema: 3 Movies and Free Lunch!

We organized this activity to create awareness of several global problems. We had an eco-friendly lunch for about 50 people that showed up and they could choose among one of 3 documentals: Flow, Food Matters, or World in the Balance. This activity only cost us $100!

The 3 movies deal with the topics of the global water crisis, food crisis and population crisis. The evaluations of the activity so far (it’s still going on electronically, we are still waiting for some people to answer the small 5-question survey) have been very positive.

350 and ecoRock Concert

This year we are planning two (2) events for 350 celebration (Climatic Action Int’l Day): one in-campus and one with the coordination of the town and mayor). This year it will be on Oct 12, 2010. Last year Campus Verde joined over 5,000 events all over the globe to celebrate the International Climate Action Day on October 22, 2009. We had 2 activities. The first activity was the formation of a human 350. Scientists indicate 350 parts per million CO\textsubscript{2} in the atmosphere is the safe limit for humanity to stabilize climate. Current level is 387ppm. (See [http://350.org/uprm](http://350.org/uprm)) We had over 100 students forming the 350 (see photos), including the participation of the university band... This activity took place on the soccer field at 10:30 a.m. The second activity that same day last year was a concert with social and environmental theme called Eco-Rock.
with the participation of the local rock band: Sol D’ Menta. This event was scheduled at 7 pm. During the event we had eco-friendly refreshments and food for sale such as tropical fruit juices and frappes, organic pizza and fresh coconuts. We had the participation of the local Surfriders’ Foundation team. This event was possible due to the support of the Mayaguez City hall, and a donation from General Electric, Lockheed Martin and Rock Solid Inc. In addition we had the collaboration from many offices at UPRM, including the Office for Social Activities, Quality of Life, Health Services and ten student associations! The 150 posters for the event were printed on the back side of damage posters in order to be environmentally friendly. This saved us 50% of the cost! This activity appeared on the University home page!

http://picasaweb.google.com/UPRMfun/350EcoRockUPRM#

During the events we collected donations and sold ecoRock T-shirts, and all funds (~$2,000) were donated to Unicef, because climate change is impacting poor countries more rapidly. Ironically, these countries are the ones that produce the least amount of greenhouse gases emissions to the atmosphere. (Africa, for instance, produces less than 3% of emissions and is one of the continent’s most severely impacted by climate change). It is a social and moral responsibility for us. Especially since children are the most vulnerable to climate consequences like drought, food scarcity and flooding. UNICEF is the humanitarian fund that most children help: it provides food, education, water, shelter, and medications to children in over 150 countries and has won two Nobel Prizes for its efforts. According to a UN report, everyday 25,000 people die due to preventable causes like hunger, lack of water, etc.

ecoBazaar

On November 24, just before the Thanksgiving Day, we organized a bazaar at the Student Center, with music, where we invited 20 artisans that used sustainable materials and exhorted people to go there for their Christmas shopping instead of buying imported goods.

For a sample of the kind of eco-friendly products sold, such as local organic coffee, vegetable-based candles and soaps, jewelry made with sea glass, seeds, bamboo, locally-made hammocks, pictures and musical instruments, etc. see http://campusverde.uprm.edu/ecobazaarsamples.htm
This activity was a success. The student decorated the place in festive motive and the artisans were very happy about the activity. This activity was co-sponsor by the UPRM offices of Social and Cultural Activities and Quality of Life.

Photos at: http://picasaweb.google.com/UPRMfun/NovEcoBazaar#

**Additional alliances and dissemination**

In our effort to reach beyond the university limits, we have form the following three alliances and dissemination strategies:

1. 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 Rick Asseita, Puerto Rico’s R&S representative. We assisted to Dr. Jane Goodall Green Campus Talk in San Juan this month and presented a brief summary of our accomplishments. From this we expect to reach a larger audience and also learn from their activities.

2. In collaboration with Sustainable Environment for Quality of Life of North Carolina, we translated the page 100 ways to save the environment into Spanish. The page can be visited at: http://campusverde.uprm.edu//100maneras.htm

3. We created a global group in Facebook called Green Idea$ (Idea$ Verde$) so that we can reach to 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!

**Web Photo Album**

Photos from all activities are being posted at: http://campusverde.uprm.edu/album.html
Appendix A: Statistics from 1st Campus Verde Survey (Spring 2009)

Green Campus Survey - Spring 2009

Results: 689 responses

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**Did you know that anti-bacterial products do more harm than good and are NOT necessary to clean hands well?**
(According to report from the World Health Organization)

- **Sí**: 35%
- **No**: 64%

**Did you know that electric appliances keep using electricity when off but plugged?**

- **Sí**: 92%
- **No**: 7%

---

**Do you unplug your appliances at home or work when not using them?**

- **Siempre**: 24%
- **A veces**: 66%
- **Nunca**: 9%

**Do your recycle plastic bottles and Aluminum cans at UPRM?**

- **Siempre**: 36%
- **A veces**: 46%
- **Nunca**: 16%

---

**Did you know UPRM also recycles newspaper and office paper?**

- **Sí**: 43%
- **No**: 56%

**Do you know where to recycle paper at UPRM?**

- **Sí**: 79%
- **No**: 20%
Do you know where to dispose old batteries and ink cartridges at UPRM to avoid water and nature contamination?

- Sí: 24%
- No: 76%

Would you buy a reusable bag at the U. Bookstore if you obtained a discount everytime you use it?

- Sí
- No

Did you know that most plastic bags are made from petroleum?

- Sí: 47%
- No: 53%

Did you know the covered Styrofoam® plate has at least 3 times more environmental impact than the flat plate?

- Sí: 32%
- No: 68%
Did you know about the potential health hazard of plastic bottles because have Bisphenol-A? (a hormone disruptor related to birth defects, brain damage, obesity, cancer and diabetes.)

- Sí: 76%
- No: 23%

Would you buy a Bisphenol-A (BPA) free cup, if you would get a discount at the Campus Cafeteria every time you use it?

- Sí: 78%
- No: 17%
- Tal vez: 3%

Would you buy a metal or BPA-free bottle to drink water?

- Sí: 18%
- No: 76%
- Tal vez: 4%

Did you know that plastic cups and straws can NOT be recycles because they are not plastic type #1 or #2?

- Sí: 28%
- No: 71%

Do you know about the health benefits of organic food, cloth and other products (produced without chemicals like herbicides, pesticides, and artificial fertilizers)?

- Sí: 35%
- No: 63%

Do you know about the adverse effects to the planet of products that are not organic? (Afect the ozone layer, fauna cause erosion, increase greenhouse gases, among others)

- Sí: 20%
- No: 79%
Appendix B: Campus Verde Survey Feedback

Comentarios sobre la Encuesta Campus Verde
Marzo 2009

La mayoría de los comentarios son muy positivos, notan los deseos de aprender de las personas, otros muestran sus dudas y frustraciones y otros muestran que aún con todas las actividades de educación y alcances hay muchos mitos que tenemos que corregir e instruir.

- Gracias por instruirme y a nuestra comunidad universitaria.
- Pienso que se deben ofrecer más productos eco amistosos y a su vez educar más sobre los daños que causan ciertos tipos de plásticos y otros objetos no biodegradables.
- Muy buena la encuesta, es muy necesaria.
- yo reciclo todo plastico que uso en mi apt en los centros de reciclaje del municipio y no compro comida en la Cafetería del colegio, pero deben limitar un poco el uso de vasos, platos etc., en la Cafetería
- Hago mi parte por el planeta. En mi casa se recicla el plastico y el aluminio, y por las noches antes de acostarme, desconecto el "adapter" que tiene conectado los enseres electronicos como el TV. Todas las bombillas de mi casa son ecosionables.
- Deseo recibir mas información a cerca del programa campus verde y sus iniciativas tanto en la universidad como en la comunidad.
- Quisiera que me informaran sobre los productos eco amistosos que mencionan aquí. Y se van a utilizar en el Colegio? gracias
- es bueno q la universidad dé el ejemplo y comience a utilizar cosas ecologicas porque así los estudiantes siguen el ejemplo y entre todos podemos mejorar el medio ambiente
- Me encanta que sse preocupen por el ambiente. Quisiera que me enviaran mas informacion acerca de la organizacion. Ademas seria muy bueno que lugares para depositar las botellas y latas sean un poco más grande porque a veces voy a echarlas y esta lleno. Piensa Verde, actua Verde !!!!!!
- Esta encuesta me ha despertado la curiosidad, ya que la mayoría de los items dentro de la misma son informaciones de las cual uno no está consciente.
- Me gustaría pertener al movimiento de campus verde, que tengo que hacer? Francisco Villafañe francisco.villafane@upr.edu
- en realidad es muy bueno q hagan esas encuestas para d esta forma saber cual es el status de conocimientos del estudiantado! y asi ayudar con nuestro ambiente tratando de hacer unos cambio en nuestra propia univ
- Me encanta la iniciativa de Campus Verde. La Cafetería, La librería y todos los departamentos deben apoyar la misma. Debería ser requisito que los prontuarios y de más información que se le brinde al estudiantado sea por medio electrónico. WebCT es una gran opción para llevar a cabo eso. Si es contar de ayudar a nuestro Planeta cualquiera de las decisiones que tomen para realizar cambios positivos las apoyaría.
- Conozco de los servicios que se administran en el colegio pero no tengo idea donde se encuentran. Creo que esto es el mismo caso de muchos otros estudiantes y es una lástima que tengamos las herramientas y no las utilicemos porque no las localizamos.
Yo tuve en mi apartamento un cajón lleno de repasos viejos, muchos papeles, y los temí arrojando a la basura porque nunca encontré el lugar a donde llevarlos. Creo que sería buena idea rotular mejor los lugares en donde se administran los servicios, realmente pienso que si los rótulos son algo que el estudiante ve cada día (porque están en todos lados) usarían los recursos mucho más con el tiempo.

P.D.: Tengo unos celulares y dos fotocopiadoras que me gustaría mucho saber si se pueden reciclar y donde. Si me pueden ayudar con esto se lo agradezco.

A veces es fácil juzgar a los demás por utilizar productos que no son bio-amigables, pero, ¿que soluciones o productos ofrecen para reemplazar los platos de foam con tapa que puedan mantener la comida caliente y a la misma vez ser bioamigables?, ¿que impacto tendrían en la economía de eaxisrir alguno(s), ¿ser’ia viable que los comerciantes ofrecieran estos métodos sin tener que aumentar el costo? Esas son preguntas que se deben hacer antes de hacer esta clase de propaganda.

Me gusto mucho la encuesta. Ojala y se tomen en cuenta algunas de las preguntas del cuestionario. Sigan hacia adelante!!!

Donde puedo reciclar el papel de color dentro del RUM?

Pregunta: El papel de color se puede reciclar? Para reciclar papel es necesario que este triturado?

Me parece muy interesante la campaña ecoamiga del RUM, pero consideraría muy propicio el envío de email con datos curiosos o útiles con respecto al ambiente mas comúnmente.

Se debe educar en las aéreas que reflejan más desconocimiento.

Me gustaría participar de sus reuniones. Gracias

La misma universidad está promoviendo la contaminación sirviéndose a todo el mundo en platos desechables. Deberían exigir que en la cafetería se compre otros tipos de platos y vasos o poner a gente a fregar, simpre y cuando ahorren agua y líquido de fregar.

Creo que es necesario que la Librería y la Cafetería a ser más eco-amistosos. Sin embargo, creo que además de eso tienen que bajar sus precios (en especial la Cafetería). Creo que se podría montar una empresa de estudiantes en el area que estaba el SAC que se dedique a adquirir los productos ecomoistosos y se le hagan llegar a@es estudiantes y de una vez a la Cafetería. De hecho estaría disponible para trabajar con esta empresa.

Muy buena iniciativa. Este tema debiese de incluirse en varios días del curso de UNIV a gran escala. Hay que concientizar a los estudiantes desde Prepas. Es un “issue” tan importante como las charlas de personalidad y sicología que dan en dicho curso. Debe ser obligatorio!

interesante

Me gustaría que en esfuerzos tan valiosos como el de Campus Verde, se incluya información a cerca de puntos de vistas diferentes para fomentar un debate saludable en torno al ambiente. Me parece útil que se expongan diferentes puntos de vista, y luego explicar porque la organización considera un punto de vista más valido; el punto quedaría mas fuerte y atractivo, especialmente para personas que no están convencidas de los beneficios de esfuerzos eco-amistosos.

Saludos.

Admiro y apoyo el esfuerzo que Campus Verde hace pero es lamentable que el RUM al día de hoy se encuentre tan rezagado en temas de reciclaje. El ejemplo debe comenzar por la casa. Cada oficina y establecimiento de esta institución debe ser un ejemplo para el estudiantado.

Continúen haciendo su gran labor de orientación.

si deberían vender productos orgánicos...tras que te ayudan en tu a vivir un estilo de vida saludable también ayuda al ecosistema

no es muy conocido en el colegio los sitios de reciclar que no sean latas y plastico. El papel se recicla en la oficina. ¿Que se está haciendo en la Cafetería donde el volumen de artículos para reciclaje es grandísimo y el uso de plásticos enorme? y las aéreas verdes del recinto donde están? la siembra de nuevos árboles? Aquí no parece que hay una facultad de ciencias agrícolas. Gracias

Creo que deben rotular o identificar mejor las aéreas de reciclaje de papel y otras.

Gracias a Campus Verde por el excelente trabajo que hacen. Siempre cuentan con mi apoyo.

Interesante encuesta, la verdad es que no sabía mucho de lo que preguntaban. En casa reciclo aunque me molesta que solamente se de un sitio en Mayagüez y el mismo no está en mi camino. Me agradaría que hubiese más sitios e información. Por ejemplo, tenía un televisor que no funcionaba en un apartamento en San Juan, llame al recogido de basura del municipio y me dijeron que ellos no lo recogía, me mandaron a la Autoridad de Desperdicios Sólidos que no me ayudaron, le pregunte en la administración y me dijeron que tenía que llamar al basurero, en el basurero me dijeron que no podía llevarlo porque solamente aceptaban ese tipo de basura de camiones de empresas o gobiernos a cargo de botar la basura. Mientras averiguaba trataba de conseguir a
alguien que le interesase el televisor para regalárselo. Agraciadamente conseguí a alguien que le interesaba y lo arreglo. Mucha gente desea reciclar pero los sitios y la información es muy escasa. Campus verde me ha ayudado mucho en mi educación verde. Por ejemplo, en casa cambiamos todas las bombillas, poco a poco estoy cambiando los enchufes para poderlos apagarlos fácilmente (todavía tengo algunos bloqueados por muebles pesados), utilizamos mejor el agua y comenzamos una mini cosecha. Una pregunta, donde se puede reciclar una computadora que se quemó?

• En vdd q un montón de esas cosas me impresionaron. El jabón, el plástico, el styrofoam, entre otras, wow. Si se hace la venta de artículos como esos en la librería yo estaré seguro de hacer de mi vida una más útil para cambiar el mundo :D.

• Deberían poner en más lugares envases de reciclaje, porque por ejemplo en Chardon solamente podemos encontrar envases para reciclar en el 2do piso, es decir frente al Anfiteatro, y a veces se nos es imposible ir a esta este lugar para poder depositar nuestras botellas y latas.

• Muy buena encuesta. También podrían enviarle la información de lo que contestó no saber a los estudiantes.

• Deberían promover mas el vegetarianismo!!!

• La Asociacion de Padres del CAAM, Inc. estamos disponibles para apoyar las iniciativas de Campus Verde en la medida que podamos con nuestros recursos y aportación de nuestros socios. Nos pueden contactar al (787)832-6633, apcaam@uprm.edu y nuestra Oficina en el RUM Edificio B Oficina 209.

• Pienso que es importante hacer disponible mas recipientes para materiales plásticos, de papel, y de lata en el Colegio ya que se ha visto en MUCHAS ocasiones los que si están disponibles llenos hasta mas no caber. Y hacerlo claro que son solo para esos materiales. En cuanto a lo de los celulares y baterias, no creo que muchas personas lo sepan y si lo saben, no saben a donde pueden llevarlos. Me parece fabuloso que han implementado todas estas medidas y que lo han seguido y ahora expandido y en cuanto a los materiales orgánicos disponible en el Colegio a un precio razonable, yo digo que SI!!!

• A veces hay que eliminar las opciones para que se pueda hacer lo correcto. Si solo tuviéramos zafacones para reciclar y no de los otros, todas las camisas con algodon organico. Las opciones causan dudas y a los que le da igual les va a seguir dando igual. Pero hay que recordar que reciclar y proteger el ambiente ya no es una opción, es una responsabilidad y una total renovación de consciencia y pensamiento.

• Estas cosas hacen falta :-)

• I liked it! Go Green!!

• Es muy importante que orienten a toda la comunidad sobre todo lo mencionado en la encuesta, es un tema muy importante, el cual ahora las personas están comenzando a darse cuenta de lo importante que es. Es muy bueno que se hable mucho sobre este tema para que se siga creando conciencia sobre lo importante que es conservar tanto el medio ambiente como nuestra salud.

• Existe un pagina del recinto con toda esta información para la comunidad universitaria y el pueblo de Puerto Rico?

• Existen los lugares en los cuales se puede reciclar papel y celulares ya que muchas personas desconoce de la existencia de esto en el colegio.

• Muchas Gracias por la oportunidad
Appendix C. Draft for the new UPRM Paper Use Policy

Política Uso de PAPEL – RUM BORRADOR

I. Trasfondo:
   a. En nuestro compromiso por reducir el impacto ambiental ocasionado por las actividades en el recinto, y como parte de su compromiso por ahorrar recursos naturales,
   c. Para tales propósitos se establece la siguiente política de uso de papel en el RUM.

II. Estatutos o Medidas
   A. El objetivo principal de todo empleado del RUM, en términos de esta Política de Uso de Papel, debe ser **evitar el uso de PAPEL**, usando formas alternas de intercambio de información como por ejemplo.

   1. **Email** - Se debe enviar correo electrónico (email) en vez de papel para asuntos oficiales y/o relacionados. Se recomienda sin embargo, que se establezca una lista en cada departamento de los profesores que desean copia impresa en papel. Para este fin se identificarán los encasillados de estos profesores con alguna cinta de color llamativo o algo para identificar fácilmente cuáles y cuántas copias se requieren.

   2. **Internet** - Para conferencias, congresos, simposios, etc, se debe usar hasta donde sea posible una portal de web en el Internet para distribuir información (como agendas, mapas, biografías, etc), en lugar de CD-ROM o papel impreso.

   B. **Si es absolutamente necesario imprimir materiales** para estos efectos, es importante ordenar trabajos en Imprenta que sean en papel o cartapacios **SIN brillo ni laminado** debido a que éstos no se pueden reciclar. Además se debe minimizar el uso de papel, por el daño que esto implica para el ambiente (a menos que sea tinta vegetal). Se sugiere **añadir una pequeña nota que indica la razón de la selección de material e impresión, como por ejemplo “En nuestro compromiso con el ambiente, este material ha sido impreso en papel (opcional: 30%? 100%? reciclado) sin brillo, por ambos lados y minimizando el uso de color.”** Además:

   1. Se deberá imprimir en **AMBOS lados del papel** para todos los documentos generados en el RUM, a menos que se justifique previamente a la oficina de Campus Verde. [campusverde@uprm.edu]

   2. Se deberá re-utilizar **sobres manila**, evitando el uso continuo de sobres nuevos. Para esto se puede utilizar la hoja de uso múltiple de sobres que se encuentra en: [http://campusverde.uprm.edu/multiusomanila.pdf](http://campusverde.uprm.edu/multiusomanila.pdf)

   3. Se debe dar preferencia a los sobres Manilla color **blanco** en vez de amarillo, pues son más baratos y se reciclan más eficientemente.

   4. Se deberá ajustar las impresoras y copiadoras para que use como defecto (en inglés: default) la alternativa de la impresora tipo **borrador** (en inglés Fast Draft Print) para maximizar ahorro de tinta.

   5. Se exhorta a que no se impriman sobres sin necesidad en la oficina de Campus Verde.

   6. Se exhorta a que no se impriman sobres sin necesidad en la oficina de Campus Verde.

   7. Se debe evitar enviar documentos por FAX debido a que estos promueven que el personal escanee los documentos para transformarlos en imágenes pdf que usualmente son de un tamaño enorme, lo cual aumenta el problema de lentitud en las comunicaciones de la red de internet. Eventualmente, se deben eliminar/reducir el número de máquinas de fax, las cuales representan un costo mensual de $100, equivalente a $60,000 anual (2008).

   8. Se exhorta a todos los profesores a utilizar otras formas creativas para ahorrar el recurso de papel, como por ejemplo usar página de cursos en el web, WebCT, entrega de asignaciones y proyectos via email, uso de papel reciclado o re-usable para exámenes. Además, para exámenes de múltiple-contestación, se puede asignar números continuos a las preguntas de varios exámenes de manera que si el primer examen tenía 25 preguntas, el segundo examen comience en 26. De esta manera, se puede usar la misma hoja de contestación para todos los exámenes de cada estudiante durante todo un semestre.
Appendix D. Summary of Accomplishments and Outcomes

<table>
<thead>
<tr>
<th>Goals</th>
<th>7 Green Resolutions</th>
<th>Done</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Transportation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organize workshops to educate cyclers (protection, awareness of drivers) and drivers (courtesy, awareness of cyclists)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bicycle marathon and exhibition</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promote the use of bicycles by university security officials</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Request more bike racks throughout the university</td>
<td>X</td>
<td>No rack was bought because there were enough on-campus. A study showed us that the racks were misplaced.</td>
</tr>
<tr>
<td></td>
<td>Ride a Bike (RAB) Student Association</td>
<td>X</td>
<td>Very difficult due to students lack of commitment</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Reduce, Reuse and Recycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change from paper towels to hand dryers in one highly transited building</td>
<td>X</td>
<td>Student Center Building: The impact of this task has not been quantified</td>
</tr>
<tr>
<td></td>
<td>Reduce the amount of waste generated</td>
<td>X</td>
<td>Recycling has been raised to over 30% (~50% if taking into consideration green waste for composting). Cafeteria waste has been reduced by half. The recycled volume has increased considerably, but percentage has stayed the same because people bring recycling materials from their homes.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Energy Conservation and Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Obtain billboard in a frequently transited area of campus</td>
<td>X</td>
<td>Student Center LCD’s</td>
</tr>
<tr>
<td></td>
<td>Fundraising activities to obtain money for paints and supplies to paint billboard</td>
<td>X</td>
<td>Raffles, T-shirt and Reusable Cups sales</td>
</tr>
<tr>
<td></td>
<td>Create posters, slogans, and other propaganda to promote campaign</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meet with the administration to propose new lighting installations</td>
<td>X</td>
<td>Administration is currently writing proposal for new outdoor lightning and for new chillers which will save a lot of emissions!</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Nature</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educate the campus community about the importance of planting and nature and its effects on the environment</td>
<td>X</td>
<td>Several tree-planting activities</td>
</tr>
<tr>
<td></td>
<td>Make the campus more aesthetically</td>
<td>X</td>
<td>Some across campus</td>
</tr>
</tbody>
</table>
## Prevent trash from entering the ocean, thus reducing deaths of sea animals from the ingestion of trash

**Goals**

- Establish meetings with the bookstore and cafeteria administration
- Educate students and faculty about the importance of using re-usable bags instead of plastic bags

## Trash removal from the river so that it never reaches the oceans and other bodies of water

**Goals**

- Five (5) beach clean-up activities and a waterfall clean up.

## Purchasing recommendations

**Goals**

- Reduce Styrofoam and installed dishwasher machine
- Bookstore now using biodegradable bags, promoting use of cloth bags, selling organic T-shirts and more.

## Education and Outreach

**Goals**

- Two Symposiums and several workshops. Two surveys about 1) Ride a Bike and 2) General knowledge of Living Green [http://campusverde.uprm.edu/ContestacionEncuesta.html](http://campusverde.uprm.edu/ContestacionEncuesta.html)
- A total of 12 professionals gave talks in their fields
- Two trainings for 60+ students who now visit many schools and civic groups providing information to over 1,000 people in a year about how to recycle or ‘green’ their lives.

## Infrastructure and water conservation

**Goal**

- Meetings on the solar house and lights.