

Mentor

Newsletter for UVG's donor community

UVG's commitment to preserving the environment



Students identify plant samples in study of ecosystem.

The Center for Environmental Studies at UVG (*Centro de Estudios Ambientales-CEA* in Spanish) is dedicated to finding solutions for environmental issues and sustainable development in Guatemala with an interdisciplinary approach and sensitivity to cultural diversity. CEA conducts research into Guatemalan ecology and biodiversity and their relationship to human activity in order to promote the restoration, preservation, and sustainable use of the country's natural resources.

The work of CEA is focused on 4 main areas:

- Monitoring natural resources such as forest cover using satellite imagery and aerial photography, monitoring the water quality of Lake Atitlan, and identifying and prioritizing at-risk ecosystems in need of conservation.
- Fostering management of protected areas in order to prevent conflict between national policies and local strategies that indigenous populations have developed to manage their natural resources.



Students test the water quality of Lake Atitlan.

- Analyzing the management of protected areas to measure the program's effectiveness, establish baselines for biodiversity, and analyze the management of eco-tourism within protected areas.
- Studying climate change from how to mitigate it with projects on carbon sequestration, to how to adapt to it.

The work that CEA performs provides tools and information for national and international institutions involved in conservation to use in planning sustainable development. The CEA has a team of students from a number of disciplines: forestry, biology, ecotourism, anthropology, chemistry, archaeology, and agronomy. The experience that they receive from collaborating on these projects is invaluable to their education; the work they do is invaluable to protecting Guatemala's unique ecosystems.

For more information about the Center for Environmental Studies please visit: CEA or www.uvg.edu.gt/instituto/centros/cea/

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Meet the Student :

Kristhell Marisol López

With the support of Jeanne and John Blackburn, twenty year old Kristhell Marisol López will be leading a research project on renewable energy in Guatemala. Kris is in her third year of physics at UVG. She has excelled in her studies and is involved in the university where she is a teaching assistant for laboratory physics and calculus. She has very little free time but to unwind she enjoys reading, watching movies and taking piano lessons.

Kris has always excelled in science; one of her proudest moments is winning first place in chemistry at the National Science Olympics in 2004. Her interest was drawn to conservation by a class she took in environmental science. She recalls watching the documentary film *An Inconvenient Truth* by Al Gore and feeling inspired to do something to protect the planet. She had initially enrolled in the physics program because of a keen interest in astronomy but after learning about the environmental issues the world faces today she knew she had to dedicate herself to finding the solutions to these issues. Kris is a deeply spiritual person and values the environment, considering it a precious gift.



Kris helps a student in the laboratory.



Donor Spotlight

Blackburns Support Student Research on Renewable Energy



Three bladed wind turbine.

Jeanne and John Blackburn have been long-term, loyal supporters of the *Universidad del Valle de Guatemala* for over 15 years. Both had successful careers in higher-learning and are committed to the advancement of education. John is a Director Emeritus of the US Foundation of the University of the Valley of Guatemala, and a former president of the Board. He received a Ph.D. in Economics from the University of Florida. For many years he taught at Duke University where he was University Distinguished Service Professor of Economics and Chairman of the Economics Department. Jeanne Miles Blackburn completed her Masters in Speech at the University of Florida. Over the years, Jeanne taught at Vassar, Duke and the University of North Carolina at Chapel Hill.

In addition to supporting the university through generous donations to our scholarship programs and art program, John recently expressed an interest in funding a research project on renewable energy in Guatemala. This presented an opportunity for twenty year old student, Kristhell Marisol López, known as "Kris", to pursue her interest in environmental studies. Kris is in her third year of college and will benefit from a scholarship to support her studies. She will undertake this project in 2009 as her thesis requirement for a degree in physics. Professor Irene Aguilar, chair of the physics department at UVG, will act as faculty advisor.

The objective of the research project is to measure and evaluate the potential for 100% renewable electricity production in Guatemala. Kris and her team will investigate the production potential of combining intermittent sources of electrical generation like solar and wind, with a base energy production provided by geothermal plants and supported by the storage capacity of hydroelectric dams to compensate for hourly fluctuations in the intermittent sources. The hope is to develop a sustainable plan that makes economic and practical sense for Guatemala to be able to generate electricity without the need for using coal or fossil fuels.



Solar panels.

Jeanne and John Blackburn's support for this project will have far reaching benefits for the students participating in the study as well as for the country.

The Transdisciplinary Model in Research and Education



Studying natural resource management in indigenous community.

Universities have long followed a Cartesian educational model which is structured by disciplines. This model was developed at a time when the world changed slowly and it was believed that complexities could be understood by breaking them into simpler parts. Under this perspective, researchers and professionals specialized in one area of knowledge. While this model helped to develop these disciplines it also discouraged expansive thinking and the understanding of connections between seemingly unrelated fields.

Today, students and professionals must make appropriate decisions for a rapidly changing and increasingly inter-connected world. It is important that they learn to integrate knowledge across disciplines and cultures. This has led to a shift towards an interdisciplinary approach to education and research. Taking this trend one step further is the transdisciplinary approach which defers from the interdisciplinary approach in that it also includes non-academic participants and institutions.

The *Universidad del Valle de Guatemala*, has embraced this dynamic approach and has begun implementing it in the research it performs and will soon adapt its educational program to the model as well.

Recently, the Center for Environmental Studies (CEA) completed a research project under the sponsorship of the Dutch Embassy in Guatemala. This project was conducted over three years, and focused on understanding local and indigenous institutions (rules and norms) that govern the use and management of natural resources.

The project drew a team of professionals and students from a number of disciplines: forestry, biology, agronomy, ecology, anthropology, sociology, ecotourism, and communication, who worked closely with the indigenous community. Studies like these that take into account the knowledge, opinions and expertise of all stakeholders achieve a holistic perspective that is unmatched when approached from only an academic point of view and from only one discipline.

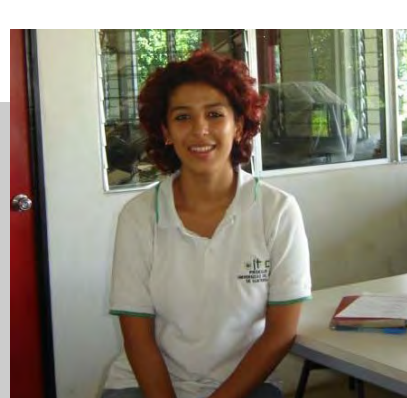
In expanding upon this model, we hope departments, professors, and students are persuaded by the far reaching benefits of the transdisciplinary model in education and research.

Many thanks to Isolda Fortin, CEA researcher, for her contributions to this article.



Water use in Ch'ort'i region of Guatemala.

Scholar Highlight



Twenty year old María José Flores Véliz is at the top of her graduating class at the Technical Institute (ITEC) of the south coast's PROESUR campus where she is completing a degree in industrial electronics. This young woman is exemplary of the kind of outstanding students we support to the generosity of our donors.

María José and her family are originally from Guatemala City but have been living in Santa Lucia Cotzumalguapa for the past 5 years. It was a difficult sacrifice for María José to have to leave the city that she had grown up in, but she understood that moving would give her family a better standard of living.

When ITEC came advert her as a student, and granted her a scholarship, she knew she had to take advantage of the opportunity. Not only would she be able to pursue a higher education, it also meant that she would not have to move away from her family in order to continue her studies. She has excelled at ITEC for the past 4 years, recognizing that her future depends on her hard work and dedication. She credits the program for making her a better student, for empowering her and giving her the platform on which to demonstrate who she is and what she is capable of.

ITEC's philosophy is to emphasize the importance of giving back to the local community and contributing to its development. María José has used the education that she received at ITEC to educate others by teaching mathematics and fundamental physics at a local high school and she has created jobs as an entrepreneur growing heliconia flowers for the local market. She hopes to become a major flower exporter and create more employment opportunities in her community. María José is a prime example of how education not only benefits the individual but the community as a whole. We thank our donors who make it possible for us to provide the financial support for bright minds and motivated students like María José Flores Véliz.

Silvio Cax decided to take a chance in life by accepting a scholarship to study agronomy at ITEC. Silvio comes from a low income family; his father could not afford to pay for his education so Silvio worked in order to pay for his own schooling. He worked 5 days a week to pay for the school he attended on Saturdays and to contribute to the household income.

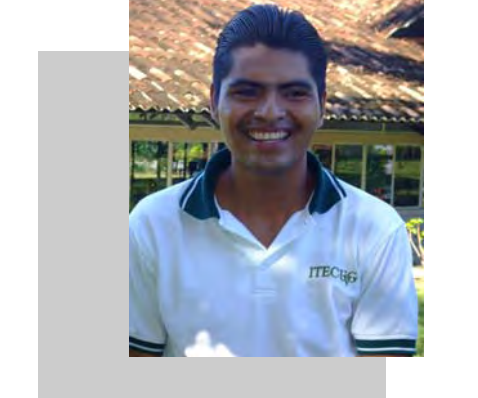
When the possibility of studying at ITEC presented itself Silvio was looking for a new opportunity that could benefit him and his family so he decided to apply. Thanks to the support of the Ministry of Education he was able to enroll at ITEC with a full scholarship, including funds for room and board. He was surprised when he heard the news but his first thoughts were of his family: What would they do without his support? He did not want to leave them, but he could not ignore the door that was opening before him.

The decision to pursue a higher education is not as easy as one might believe. For some of our students it means moving far from their families and communities; it can also mean no longer being able to contribute financially to their family for several years. Students often face a difficult choice between work and education. Prior to being admitted at ITEC and receiving the scholarship, Silvio had had to finish all his duties at work before he could study, and that left him with very little time and energy to truly focus on his education. Now he dedicates himself entirely to his studies and says that the best part of the scholarship is that he can take the time to truly learn.

Silvio is in his second year of agronomy and is looking forward to becoming a professional. He will be able to advance further in his field thanks to his education at ITEC and he will be able to make a better life for himself and his family.

"With the education that ITEC provides me, I am able to educate others and create jobs in my community."

-Maria Jose Flores Veliz



"I used to worry because in the past I had to finish my duties at work before I could study, and I didn't have time to actually learn."

-Sylvio Cax

This newsletter was designed and written by Rebeca Frohmader, Coordinator of Local Fundraising, Development and External Relations Office in Guatemala City.

Please make a gift to our scholarship program and give the gift of education.

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