

# **Internships in Sustainable Development in Costa Rica**

## **Sustainable Development Working Group**

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### ***Summary***

The goal of achieving sustainable development lies at the intersection of the Grand Challenges identified in Lehigh's Strategic Plan. Our mission requires that students be prepared to respond to the need for development practice that strengthens the economy and advances human welfare while protecting the environment that sustains the future of both. We propose a highly focused, interdisciplinary, and problem-oriented program that combines classroom and experiential learning through internships in Costa Rican environmental and developmental NGOs.

### ***Sustainable Development in Costa Rica***

Costa Rica is an ideal location to study sustainable development because it has been woven into the fabric of Costa Rican society and constitutes the core of Costa Rican development strategy. Costa Rica has made progress in the area of prosperity and social equity. Remarkable progress has also been made in the environment through extensive preservation of large tracts of land. In fact, about 26% of Costa Rica has been preserved as national parks, reserves, and conservation areas. Most of these tracts are owned by the federal government but many are also held by private individuals and conservation trusts. Tourism has been an important industry in shaping the economic development of Costa Rica (it represented ~10% of GDP in 2010). Much of the growth of tourism is linked *specifically* to "ecotourism" which attracts visitors to the country largely based upon its rich ecosystem and biotic diversity. In many regions of Costa Rica, ecotourism is the instrument that connects conservation to economic development. Thus, progress in conservation has the potential not only to protect biological diversity, but to synergistically expand economic activity through ecotourism.

Although Costa Rica has had remarkable success with respect to forest management, many undisturbed tracts exist as fragmented, isolated "islands" in a landscape that has become degraded by agriculture, tourism, or urbanization. One of the most pressing conservation goals in Latin America is to reconnect many of these tracts of land with intact biological corridors. The Pacific slope of Costa Rica, specifically the province of Puntarenas, is especially impacted by forest fragmentation. The Pájaro Campana Biological Corridor forms part of the Mesoamerican Biological Corridor which stretches from southern Mexico through Panama. Conservationists are actively involved in preserving and reforesting critical sections of this biological corridor. The resulting new forest patches will help to improve forest connectivity throughout the Pájaro Campana Biological Corridor and will directly contribute to the establishment of new habitats for a variety of animal species. Reforestation is also part of a broader effort to engage local landowners as part of the solution by developing market-based incentive programs which will

provide income to them for reforesting degenerated landscapes and protecting existing forests on their farms. Reforestation efforts will eventually attract ecotourism to the region which will stimulate economic development.

The conservation activity described here has impacts well beyond Costa Rica. Because reforestation sequesters CO<sub>2</sub> (a “greenhouse” gas), it has implications for global climate and for the development of global scale policies to “offset” or mitigate anthropogenic CO<sub>2</sub> emissions. The conservation activities described here are also easily transferred throughout Central America (and beyond) to link critical conservation and economic development goals inherent in the concept of sustainable development.

### ***The Program’s Objectives***

The goal of this project is to augment the classroom education currently available to students in environmental science or environmental studies with practical on-the-ground experience in sustainable development projects. Students will hold internships with Costa Rican development and conservation NGOs which conduct projects related to the protection of the natural environment. The sustainability of that environment is crucial to the ecotourism strategy of sustainable development for which Costa Rica is well known. This program is designed to address the following educational and institutional goals:

- Contribute to meeting the “Grand Challenges” laid out in Lehigh’s strategic plan by incorporating elements of globalization and the environment into the undergraduate experience.
- Allow students who lack the time or financial resources for a semester-long study abroad program to participate in international learning experiences.
- Create an international internship opportunity specifically tailored to students with an academic background or general interest in the environment and/or international development.
- Demonstrate the inherent interdisciplinary character of “sustainable development” studies by emphasizing the connections among environmental conservation, economic development, and social/economic equity.
- Provide students with an appreciation for the environmental aspects of sustainable development in rural Latin America and expose students to issues related to conservation and preservation of biotic and ecosystem diversity.
- Expose students to Latin American culture and reinforce Lehigh’s connection with various NGOs in Costa Rica.

### ***The Experience***

Interns will begin the program on the Lehigh campus by participating in a series of modular “bootcamp” courses that will be conducted during the preceding spring semester. These modules are currently being developed and will include content on the basic principles of sustainable development as well as relevant material related to development economics,

community participation, field work methods, the political economy of poverty, and project management, as well as the polity, economy, society, and culture of Costa Rica. Students in this internship program will also participate in a module containing instruction in ecosystem ecology, conservation, and environmental policy relevant to their impending activities in Costa Rica.

After arriving in Costa Rica, students will spend approximately 5 weeks in internships with NGOs focused on various aspects of forest conservation related to sustainable development. Students could choose to do two different internship options: 1) Approximately 2 ½ weeks at each of two host NGOs, or 2) A 5 week internship at a single NGO. The specific internship(s) will be selected for each student according to their particular interests and their Spanish language proficiency (some will require a high level of fluency while others may not). Each student will be placed at one or two of the following host institutions (note the attached hyperlinks for each):

[Asociacion de Desarrollo Integral de San Luis](#)

[Costa Rican Conservation Foundation](#)

[FUNDECOR](#)

[Monteverde Conservation League](#)

[Monteverde Institute](#)

The last 2 weeks of the internship program will be conducted at the University of Georgia's Costa Rica campus in San Luis. In this element of the program, students will work collectively and specifically on the study and establishment of the Pájaro Campana Biological Corridor (this experience overlaps with a 12-day Environmental Community Service Project being conducted by another population of Lehigh students).

### ***Academic Content***

While the mission statements are slightly different for each of our host NGOs, all students will be involved in some aspect of reforestation which is critical to preserving biodiversity in this region. They will also be involved in ecological research to evaluate the extent of existing forest fragmentation as well as evaluating the success of past reforestation efforts. These efforts are substantially more than “just planting trees”. A few specific student activities are provided below:

- Mapping land-use and forest cover in the region using GPS. Map the fringes of existing forest tracts as well as mapping forest fragments. The resulting GIS coverage would be critical in assessing existing deforestation and planning future reforestation strategies.
- Locating and mapping areas of past reforestation. Once located, the success of these reforested tracts can be evaluated based upon seedling survival, viability, and forest community structure.
- Making annual measurements of tree growth in reforested tracts. The resulting estimates of growth rate could be used to estimate rates of CO<sub>2</sub> sequestration.

- Working closely with landowners and stakeholders to perform on-site characterization and planning of reforestation activities. Interns may also be involved in developing business plans and other forms of assessment required for landholders to obtain funds for environmental services provided by their intact forests and/or reforested tracts.
- Performing horticultural work in the nursery related to the propagation of indigenous tree species.
- Performing actual reforestation (i.e. tree planting).

These activities will help Lehigh students gain an appreciation for conservation issues and help them to better understand the important link between policy, economic development, land use, and conservation. Students with an academic background in environmental science and policy will constructively apply their skills to real-world problems, while practicing skills related to data collection and interpretation.

### *Administrative Details*

- **The Target Population.** The target population for this internship program includes upper class students with a disciplinary background in environmental sciences or environmental studies. A secondary target group is students with a disciplinary background in Latin American Studies, International Development, Policy, Spanish, or Environmental Engineering who have also taken some coursework in environmental sciences or environmental studies.
- **Student Recruitment.** Students will be recruited by the Study Abroad Office and through faculty in the departments or programs mentioned above. Students will also be recruited through various Lehigh clubs and through campus meetings and campus print and electronic media.
- **Program Size.** The capacity for this program is ten students, four of whom we hope will receive the Iacocca funding, 2-3 who might be funded by CAS, and the remainder being full-paid students. In the future we would hope to have a more even distribution of students between the 7 week internship and 12-day Environmental Community Service Project.
- **Accompanying Faculty.** One faculty member will be on site at the start of the internship program. Two faculty members will be on site in August for the Pájaro Campana Biological Corridor Project (last 2 weeks of the program). The initial faculty visit is necessary to arrange housing for the students, coordinate with host NGOs, and successfully establish students in their internship programs. During the August visit, the faculty members will work closely with students on projects related to the study and establishment of the Pájaro Campana Biological Corridor.
- **Program Assessment.** The program will be assessed using a variety of instruments. Host NGOs will be asked to write a letter and complete a brief survey regarding the overall effectiveness of the program, the activity of the interns, and ways to improve the program

for future participants. Each intern will complete a survey and will be asked to maintain a daily journal of their activities in the context of conservation and sustainable development. Upon returning to the Lehigh campus, each intern will make a presentation to students and faculty describing their activities and experiences. Following graduation, students will be tracked and an attempt will be made to assess whether the internship has had a meaningful impact upon a student's career path and/or ultimate career success.

### ***Proposed 2014 Timeline***

- **August-December:** Program promotion and student recruitment. Finalize arrangements with host NGOs.
- **March-May:** Interns participate in instructional modules and sustainable development “bootcamp”. Interns are matched with host NGOs.
- **July (date TBD):** Interns depart for Costa Rica
- **July August:** Students work in internship programs with host NGOs.
- **August (specific dates TBD):** Students work collectively and intensively on the Pájaro Campana Biological Corridor project.
- **August:** Interns return to USA.
- **September:** Intern presentations and journals are due. Initial assessment is completed.

### ***Budget***

This budget is based upon the participation of 4 students and 2 professors. One of the professors will visit Costa Rica in July at the start of the internship program. Both professors will visit Costa Rica in August for the Pájaro Campana Biological Corridor project (last 12 days of the internship). The expenses for the August visit will be divided equally between the budget for this program and the budget for the “Costa Rica Environmental Community Service Project”. The second faculty member may in actuality be a staff member or GA. No salary is budgeted for any faculty/staff member. See budget notes for more details (see below).

#### **2013 Budget-- Summer Internship in Costa Rica v. 4-30-13**

**June 28 to August 20**

**D. Morris**

<b>Item</b>	<b>Cost/intern/d (\$)</b>	<b># Interns</b>	<b>#Days</b>	<b>Total Cost (\$)</b>	<b>Notes:</b>
<b>Accommodations (Internship)</b>					
Osa Conservation	35	3	34	\$3,570.00	July 4 to August
SCLC	13.5	1	37	\$499.50	SCLC Invoice #
Los Cusingos	30	2	34	\$2,040.00	June 2 to August
UGA	35	2	36	\$1,956.00	UGA Invoice #3

Hotel Cacts	47	1	17	\$799.00	Hotel Cacts Invo
<b>Supplies (Internship)</b>					
UGA				\$300.00	UGA Invoice #3
OC				\$331.30	Need to transfer
LC				\$0.00	ESTIMATE
SCLC				\$0.00	
<b>Accommodations (Service Learning)</b>					
OC	35	11	8	\$3,080.00	August 6-13 EST
UGA	35	1	51	\$1,275.00	UGA Invoice # 3
<b>Supplies (Service Learning)</b>					
UGA (Bioreactor supplies)				\$1,650.00	UGA Invoice # 3
OC				\$0.00	
<b>Charter Bus Service (Transuca)</b>					
				\$1,315.00	Transuca Invoice
<b>Airfare</b>					
Student Airfare		8	778	\$6,226.00	
Morris Airfare (est.)		2	778	\$1,556.00	
<b>Other:</b>					
Morris Food & Accommodations (while traveling)				\$500.00	Estimate of cost
Morris Accommodations at UGA (internship & summer serve)				\$448.00	UGA Invoice # 3
Local transportation (cabs & buses)				\$500.00	ESTIMATE
Wire transfers and Phone				\$200.00	ESTIMATE
Contingency				\$500.00	ESTIMATE
<b>Total Costs</b>				<b>\$26,745.80</b>	
Revenues (Internship)		8	3000	\$24,000.00	
Revenues (Service Learning)		2	1400	\$2,800.00	
Additional EI Support for Service Learning Project				\$1,500.00	Up to this amount
<b>Total Revenue</b>				<b>\$28,300.00</b>	
<b>Profit/loss</b>				<b>\$1,554.20</b>	