

**Consortium on Law and Values  
in Health, Environment & the Life Sciences  
2016-17 Student Proposal Cover Page**

**Applicant Information**

**Applicant name(s):** Patrick Amilcar Roisen **Email:** [Roise010@umn.edu](mailto:Roise010@umn.edu)

**Project title:** Sustainable Livelihoods in Rural Guatemala:  
Commercialization Strategy and Impact Assessment of Indigenous Forest Products

**Department:** Interdisciplinary  
Center for the Study  
of Global Change **College:** Humphrey School

**Degree program:** Masters of Development Practice **Faculty advisor name & email:** Karen Brown, Ph.D.,  
kbt@umn.edu  NA

**Dept. Head:** David Wilsey **Dept. Head's email:** dwilsey@umn.edu

**Dean:** Eric Schwartz **Dean's email:** eschwartz@umn.edu

How did you hear about this funding opportunity?

Consortium e-mail  Graduate & Professional Student Update  The Brief  Advisor  Dept. email/newsletter   
Consortium website  Other (Through a colleague at the Institute on the Environment)

**Funding**

**Total amount of funding requested:** \$3,800.00

Executive summary (maximum 200 words)

Rainforest Alliance, and a consortium of Guatemalan partner institutions, seek to maximize the profitability of specific indigenous and Mayan livelihoods while simultaneously mitigating the negative effects of climate change through the promotion of sustainable agricultural practices. Allspice, chicle, and *xate* palm are endemic to the region, highly marketable, actively curb harmful deforestation through sustainable harvesting, and conserve the region's robust ecosystem. My research in Guatemala this summer will produce an impact assessment on the effects of such commercialization on the economic livelihoods and health strategies of the indigenous populations. By doing so, I hope to contribute to the effectiveness of this innovative USAID-funded project while strengthening the economic resiliency of highly vulnerable Mayan communities in the region.

**Approvals**

*Check all appropriate approvals required for your proposal. It is not necessary to have all approvals at the time of proposal submission; however, approvals must be obtained prior to receipt of funding. If you have applied for approval but have not yet received it, indicate that below.*

IRB  Yes  No  NA  Application pending

Other  Yes  No  NA  Application pending Specify:

**Checklist—for reviewer use**

- The proposal is 1000 words or less excluding budget, biographies, references and citations.

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- The proposal includes a work plan with a specific timeline using months or quarters to identify work to be done and completion dates.

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- The proposal includes a 1-2 paragraph biography of the applicant and all co-investigators.

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- The budget form is complete including the funds sought for this project, other pending applications for this project, and the amount/source of matching or other funds.

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- The applicant's faculty advisor is copied on the application email. Professional students w/o advisors check NA.

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- All necessary approvals are pending or received.

**Background:**

The Guatemalan Mayan Biosphere (MBR) is undoubtedly among the most ecologically diverse regions in the world, but also the most vulnerable to global climate change. Located in the very center of Mesoamerica's second largest tropical forest, the reserve was established by the Guatemalan government in 1990 to help preserve the region's astonishing biodiversity. Despite its protected status however, MBR ecosystems face numerous threats from human activities, including illegal logging, poaching, and farming.

While a majority of the reserve is protected purely for conservation, the Guatemalan government granted indigenous community groups forest user rights within a "multiple use" zone. This protected zone allows for sustainable harvesting of non-timber forest resources while providing local populations a reliable source of income. Those working in this region have been certified to the sustainability standards of the *Forest Stewardship Council* and contributed zero forest loss over the past 16 years (compared to a yearly deforestation rate of up to 5.5% for the rest of MBR).<sup>1</sup>

Historically, indigenous groups in the region harvested a variety of products from the forest, including fruits and nuts, vegetables, and medicinal plants. These non-timber forest products (NTFPs) retain deep cultural significance to the Mayan populations of Guatemala. The planting and harvesting of such products embody key components of sustainable forest management strategies. Over the past two decades, governments and conservation agencies, such as Rainforest Alliance, have encouraged expanding the market for NTFPs as a strategy to introduce greater revenue for poor or indigenous communities while encouraging forest conservation. Along with the market-based research activities, it is essential that our team correctly identify the potential impact that commercialization may have on community and individual livelihoods.

By securing access to global markets and developing more efficient production models, the communities in northern Guatemala will be able to harvest *xate* palm, chicle and allspice more effectively and thereby generate greater income. Moreover, such sustainable harvesting strategies will better align the Mayan population with current national efforts to ensure the longevity and health of the reserve for generations to come.

**Project Description and Research Objectives:**

The effort to bring *xate* palm, chicle, and allspice to diverse and global markets is a USAID-funded project, titled "Climate, Nature and Communities in Guatemala" (CNCG). The goal of this project, in concert with Rainforest Alliance and partner organizations, is to support natural resource conservation and improve rural livelihood schemes in northern Guatemala through strategic commercialization efforts. Now in its fourth year, this project emphasizes the increased capacity of local organizations and is an essential component in Guatemala's low carbon emissions strategy. By promoting appropriate natural resource management techniques, CNCG is effectively mitigating the negative effects of climate change while supporting rural community groups to market sustainable forest products.

The following objectives are necessary components to achieve this goal:

- Prepare literature review of the commercialization and certification process for the Petén region as it relates to specified products (pre-departure).
- Survey and interview local community stakeholders, particularly harvesters in the multi-use zones, to gauge capacity and willingness to manufacture products sustainably.

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<sup>1</sup> Radachowsky, Jeremy, et al. "Forest concessions in the Maya Biosphere Reserve, Guatemala: a decade later." *Forest Ecology and Management* 268 (2012): 18-28.

- Perform supply-chain analysis and estimate the additional cost required to obtain Fair Trade Certification and potential added value in the market.
- Estimate the livelihood impacts (economic and health related) from the production of *xate* palm, chicle and allspice in the communities of Petén.

My research will focus on how the commercialization of these NTFPs will impact the livelihood strategies of the communities who participate in this project. This work will be done in conjunction with the team's supply chain analysis and rely predominantly on qualitative data collection and participatory analysis techniques. My impact assessment and overall contributions to the project will help clarify the long-term effects of commercialization and ensure that each community is aware of the project. Significantly, this assessment comes in response to requests by communities in the Petén region who requested greater information on how changes in economic strategies and developing new market partnerships might affect daily life. Doing so will help ensure the needs and priorities of each community is met, thereby reinforcing CNGCs capacity to foster healthy and sustainable economic growth in the region.

#### January 20 – May 2

- (Pre-Departure) Literature review, planning with host organizations in the Petén Region and general preparation for the field work in Guatemala.

#### May 15

- Arrival in Guatemala from Minnesota.

#### May 16 – 18

- Orientation with Rainforest Alliance and other partners in Guatemala City.

#### May 19

- Travel to Petén Region from Guatemala City.

#### May 20 – July 28

- Visit communities to evaluate the level of interest and capacity to offer *xate*, chicle and allspice to the market.
- Evaluation of costs of collection and processing of *xate*, chicle and allspice.
- Meetings with partners in Petén working with the NTFP's in the public and private sector in Guatemala (government agencies, local women's groups, international aid agencies and projects, NGO's, etc.).
- Trip to Guatemala City to meet with businesses, government agencies, and certification groups.
- Preparation and presentation of a preliminary report to the communities and partners in Petén followed by the preparation of a final report incorporating comments and suggestions.
- Working closely with partners, prepare a follow up plan for the commercialization of *xate* palm, chicle, and allspice in the US and Guatemala.

#### July 29

- Return to the US.

**In addition to the Consortium on Law and Values, I will apply to the following funding opportunities:**

1. Interdisciplinary Perspectives on International Development (IPID) International Travel Grants - Grant amount is up to \$1,250 for participating in research, internship, or work experience related to international development.
2. Stassen International Grant – Awards typically range between \$1000 and \$2000 for field experiences related to international affairs.
3. David Lucas Travel Grant – Awards are \$500 and used to encourage students to do internships and field experiences in international development.

**International Experience:**

Given my family's history in South America, my upbringing afforded me numerous opportunities to visit Argentina and Chile. Later as a Peace Corps volunteer, I lived and worked in rural West Africa for over 3 years. Additionally, during a study abroad term in England, I was enrolled at Oxford University and took courses in international political theory and law.

This will be my first time in Guatemala, a country and region that has long inspired me to pursue environmental interventions that support the livelihoods of indigenous and rural people. This project in particular will also provide the opportunity to apply what I have learned in the MDP program in a real-world and meaningful way.

**Relevant Professional and Academic Qualifications:**

I am a dedicated international development practitioner with over five years of experience and proven capacities in project management, community engagement, and team-based collaboration in intercultural settings. As a former Peace Corps volunteer, I have valuable experience working closely with rural and geographically isolated communities. During my service, I routinely conducted field research, food security trainings, community surveys and relied on participatory analysis to successfully complete my funded projects. In this capacity, I was trained in environmental management and sustainable development strategies and worked collaboratively with various stakeholders in my community to execute projects.

As a current graduate researcher for the Institute on the Environment, I support various faculty-led research projects aimed at extending sustainability efforts beyond the University. Moreover, my graduate coursework has already equipped me with skillsets in impact evaluation, strategic management and an understanding of agricultural systems that compliment this project. Lastly, as a native Spanish speaker, I am well-suited to facilitate exchanges between my team and our work partners.

Given my relevant community-based experiences and methodological skill-set, I feel confident in my research objectives and grateful for the opportunity to strengthen my career goals while advancing the mission of CNCG with Rainforest Alliance.

**Team Qualifications:**

In order to complete the commercialization phase of the project, Rainforest Alliance has invited four members of the Masters of Development Practice (MDP) program at the Humphrey School of Public Affairs.<sup>2</sup> Our graduate student team is comprised of experienced development practitioners, each of whom bring distinct professional qualifications that will directly contribute to the success of the project. Our project advisor, Dean Current, is the Director of the Center for Integrated Natural Resource and Agricultural Management (CINRAM) for the University of Minnesota and he has worked extensively

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<sup>2</sup> A summer field research experience is a required component of the MDP program at Humphrey.

with Rainforest Alliance. This strong relationship will benefit our research team and help ensure a smooth transfer of institutional knowledge as we prepare for the summer field experience.

**Biographical Statement:**

I sought the Development Practice program at the Humphrey School particularly because of its pragmatic approach in training the next generation of development practitioners. As the world begins to engage the 2015 Sustainable Development Goals, my coursework has already empowered me with a set of practical skills and competencies that will enable me to understand and address the grand challenges of our time. My graduate experience has also allowed me to work at the Institute on the Environment, conducting research and managing programs for various faculty-led sustainability education projects. Given my interest in the field of environmental protection, human development, and intercultural exchange, the summer research project in Guatemala is ideally situated to complement my previous experiences and future goals.

My passion for international development was first fueled by my rigorous academic experiences and yearning for inter-cultural development. My time at St. Olaf College, a liberal-arts institution, solidified my raw passion for understanding the world and instilled in me a profound sense of global stewardship – echoed by its motto *Ideals to Action*. During my four years of study, I developed a strong interest in rural livelihoods and in human rights through courses that stressed critical thinking with an international perspective. Additionally, as my parents are from Argentina and Cuba, the tenor of my upbringing was rooted in intercultural exploration and curiosity. These experiences motivated me to better understand the differences between countries and taught me to ask searching questions in order to make better sense of the world.

Given my interest in development and cultural understanding, becoming a Peace Corps volunteer was a natural next step. As a Gender Equality Specialist, I was firmly integrated into the local community and could therefore appreciate the extent of gender inequality and the deficiencies of the education system from multiple angles. Later, as the National Program Coordinator for an international NGO in West Africa, I managed and oversaw projects related to environmental protection and gender equality. Through strategic leadership and effective change management, I delivered program success while fostering an open and participatory environment for my team. In this role, I extended the department's impact and developed evaluation tools to efficiently and intelligently scale-up. Today I maintain strong ties to the organization and serve on the Board of Directors.

The summer field experience with Rainforest Alliance is ideally suited to meet my professional goals. Upon graduation I hope to work directly with an environmental NGO operating in Central or South America whose mission is to defend and empower the livelihoods of indigenous populations. While I have significant experiences working with nascent development organizations, I appreciate the opportunity to operate within a renowned and established global institution, in addition to gaining a better understanding of how USAID and other bilateral funding mechanisms operate in the field. This project offers me a chance to connect and collaborate with local populations in a geographically meaningful and professionally applicable setting. For this reason, I am eager and prepared to execute this research project in Guatemala and take full advantage of the intercultural and professional opportunities to learn and grow.

**Consortium on Law and Values in Health, Environment the Life Sciences  
Proposed Budget**

**Project Title: Sustainable Livelihoods in Rural Guatemala: Commercialization Strategy and Impact Assessment of Indigenous Forest Products**  
Roisen, Patrick

Provide justification along with costs.		Requested funding		Matching/other funding <i>Provide this information is you have other funding sources for this project.</i>	
		Amount	Amount	Source	
1	<b>Category&amp; instructions</b> Your stipend <i>Maximum of \$5,000</i>		\$0	N/A	
2	<b>Category&amp; instructions</b> Speaker honoraria (for colloquia)	<b>Justification</b> ___ speakers x \$ _____ honorarium	\$0	N/A	
3	<b>Category&amp; instructions</b> Supplies & Services <i>Identify and explain use here or in the body of your proposal.</i>		\$0	N/A	
4	<b>Category&amp; instructions</b> Equipment <i>Identify and explain use. Allowable only if the equipment is necessary for this project. All equipment must be given to your dept. at the completion of your project.</i>		\$0	N/A	
5	<b>Category&amp; instructions</b> Travel <i>Indicate the purpose of the travel, estimated dates of travel, transportation, housing and allowable per diem costs (see travel.umn.edu).</i>	<b>Justification</b> <b>--Transportation (\$1,350):</b> Amount includes the average cost for roundtrip airfare from Minneapolis to Guatemala City (\$850) where our team will first meet Rainforest Alliance staff. Following a brief stay in the capital, our student research team will take a connecting flight to Flores in the Petén Department (\$250). Additional car travel (\$250) within the Petén region will be necessary in order to visit several Mayan communities. <b>--Room and Board (\$1,500):</b> Amount is based on advice from local staff in Flores, where our team will be based for a majority of the project. It includes a shared apartment space near the city center and the Rainforest Alliance office, as well as periodic stays in rural communities around the Petén region. Lodging while in Guatemala City or regional offices will be covered by Rainforest Alliance. <b>--Miscellaneous Expenses (\$100):</b> This amount includes the cost of a Guatemalan SIM card (\$50) for a cell phone and a limited amount of phone credit for project related purposes (\$50). <b>Tuition/Program Fees (\$850):</b> This fixed fee is required for graduate students enrolled in the MDP summer field experience abroad. It is determined by the Learning Abroad Center (LAC) which includes relevant academic fees, health insurance, and full safety and security coverage while in Guatemala.	\$3,800	\$3,800	
		<b>Subtotal research expenses (2-5)</b>	<b>\$3,800</b>	<b>\$3,800</b>	
<b>TOTAL BUDGET</b>			\$3,800	\$3,800	