

# Consortium on Law and Values in Health, Environment & the Life Sciences

## Student Proposal Cover Page

### Applicant Information

Applicant Name: Katrina Mitchell Date: 3/20/2009  
Project Title: Waste scavengers (recicladores) in San Pedro Sula, Honduras  
and the effect of global market change on informal recycling activities  
Department: Humphrey Institute of Public Affairs College: Humphrey Institute of Public Affairs  
Home address: 3805 Harriet Avenue City & State: Minneapolis Zip: MN  
Faculty advisor name: Ryan Allen Email: allen650@umn.edu  Not applicable  
Dept. Head's name: not applicable Dept. Head's email: not applicable  
Dean's name: Brian J. Atwood Dean's email: jbatwood@umn.edu

How did you hear about this funding opportunity? University email

### Funding

Amount of funding requested: \$ 6,960

Funding justification: [a clear statement of what you will use the funds for without going into budget details]

The funding will support field research on waste scavenging in San Pedro Sula, Honduras and the impact of the current global recession, and freeze in trade of recyclable materials, on this informal economy. I will conduct a multi-faceted study of the waste scavenging community in San Pedro Sula, including direct observation of scavengers at the municipal dumpsite; a value chain analysis of the recycling sector from scavengers to industry (informal to formal economy) using unstructured interviews with people and business in the local waste and recycling industry; and a case study of the San Pedro Sula scavengers using semi-structured interviews of scavengers. The funds will be used to offset the cost of traveling to Honduras, and will support both survey design and the data collection phases.

### Approvals

*Check all appropriate approvals required for your proposal. 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 Date submitted: 3/20/2009 Number: Application pending  
 IACUC Date submitted: \_\_\_\_\_ Number: \_\_\_\_\_  
 Other Explain: \_\_\_\_\_

### For Use by the Consortium Office

- The proposal is 1000 words or less excluding budget, biographies, references and citations.  
 The proposal includes a work plan with a specific timeline using months or quarters to identify work to be done and completion dates.  
 The proposal includes a 1-2 paragraph biography of the applicant and all co-investigators.  
 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.  
 The applicant's faculty advisor is copied on the application email. Professional students w/o advisors check NA.  
 All necessary approvals are pending or received.

## **Waste scavengers (recicladores) in San Pedro Sula, Honduras and the effect of global market change on informal recycling activities**

### **Applicant:**

Katrina Mitchell, Master of Urban and Regional Planning (candidate)  
Humphrey Institute of Public Affairs  
mitch445@umn.edu

### **Advisor:**

Ryan Allen, Assistant Professor  
allen650@umn.edu

### ***Project's Nature and Importance***

The human generation of waste, and the management of its collection, transport and recovery or disposal, has many societal implications. In the short term, poorly managed waste is a public health problem, as uncollected, or illegally dumped waste attracts pests and spreads disease. Long term, the environmental impact of waste disposal can have serious ecological consequences including groundwater contamination from toxic landfill runoff, and the production of methane from waste decomposition, contributing heavily to greenhouse gas accumulation.

In developing countries, solid waste management also has a socio-economic component. In response to a scarcity of jobs, resources and economic opportunities, up to 2% of the population in developing countries (64 million people worldwide) rely on informal collection, reuse and recycling to survive (Medina, 2007). Often from socially or economically marginal communities, scavengers are most often women and children who pick through wastes at municipal dumpsites. Exposed constantly to high levels of toxins, hazardous conditions, and disease. Many not only work in these conditions, but also live in them.

Appropriate municipal solid waste management (MSWM) will become more urgent as rapid urbanization, globalization and economic growth strain municipalities in less developed countries worldwide. The gap between the waste that is generated and collected is growing (Davis, 2006); only 50-70% of the waste generated in these cities is collected, despite large public expenditures to manage waste (30-50% of municipal budgets). Most poor areas have no collection at all (Medina, 2007). The most rapidly growing areas of these cities, the slums, are literally being buried in waste.

The recycling industry is global and with the current economic downturn, recycling trade is frozen. These macro economic shifts are challenging for stable, advanced economies and even more so for less developed countries and informal economies. A growing number of people and communities who were supported by scavenging have had to turn to other ways to survive (Levin, 2009; Sharma, 2009).

### ***Why San Pedro Sula?***

As the industrial and transportation hub of Honduras, San Pedro Sula is highly vulnerable to the global economic recession (IMF, 2009). At the current rate of disposal (1,200 tons of waste is dumped daily) the dumpsite is expected to reach capacity in 2013. Little work is being done to reduce waste and extend the use of the dumpsite. In four years there will be no place for waste to go.

Conventional approaches favored by aid agencies do not treat MSWM as a multi-faceted issue inextricably linked to economic development, public health and resource recovery. (Furedy, 1997 & 1993; Medina, 2007; Sudhir, et al, 1996) Developing cities, such as San Pedro Sula, are torn between adopting policies likely to be funded by foreign aid agencies – mimicking the waste collection, transport, recovery and disposal systems of the industrialized, advanced economies – and creating strategies that integrate the informal sector to address economic development, public health and environmental protection goals. Depending on the solution proposed, 700 people who make their living scavenging at San Pedro Sula's dumpsite may no longer have means to support their family.

The San Pedro Sula waste site is relatively undocumented. Many of the larger dumpsites worldwide have been studied. The case of San Pedro Sula is important because it is both small, and not yet organized; policies and strategies are not yet locked in. Given the short timeline and great need for innovative solutions, it is my hope that this research will contribute to establishing programs and policies in support of integrated waste management in San Pedro Sula.

### ***Project's Innovative Contribution***

Waste management research is inherently cross disciplinary. It is a complex issue involving the environment, public health and human rights. It requires considering diverse perspectives including those of engineering, municipal management and public policy, ecology, economics, public health, poverty studies, human rights and environmental justice.

Globalization has led increasing interdependence between informal workers and the global marketplace (McCormick & Schmitz, 2001). In the case of scavenging, the health of the worldwide economy has a direct impact on whether municipalities can meet their public health, waste reduction and environmental preservation goals. If recycling is not profitable, scavengers may seek other ways to earn a living, leaving waste uncollected, creating greater public health and environmental problems as cities strain under tightening budgets.

This innovative research seeks to understand the connection between the global marketplace and informal recycling activity so that cities can develop appropriate local solutions. I hope this work will help expand solutions that strengthen local markets for reused and recycled materials. Using a value chain approach to waste scavenger analysis will provide new ideas about how waste moves through the production/consumption cycle in developing countries and will strengthen our understanding of the connection between informal work and global markets.

### ***Work plan and timeline***

Through unstructured interviews with approximately 20 business owners and municipal officials, a semi-structured interview/survey with 100-200 scavengers and direct observation of the dumpsite and nearby community (El Ocotillo) my research seeks to:

1. analyze the recycling value chain in San Pedro Sula, from the informal sector to the formal sector (WIEGO);
2. understand how the current economic downturn has affected the scavengers, specifically whether they are able to support their families on what they are now making, and how are they responding to the market change; and,
3. document aspects of the community that are relevant to the body of knowledge about waste scavenger communities, such as: size and demographics, kinds of activities, health and work safety issues, formation of groups or organizations, and the nature of the relationship between scavengers, middle-men and the municipality (Medina, Wilson).

*2009 Timeline:*

- May: Travel to San Pedro Sula to conduct informal interviews and focus groups with key community and business leaders, including scavengers. Field test survey questions.
- June: Analyze initial data. Revise survey questions, design final survey and data capture tool. (Minneapolis)
- July-August: Travel to San Pedro Sula to conduct additional interviews with business owners, municipal officials and community leaders. Conduct semi-structured interviews/surveys with scavengers.
- August-October: Write up research results.

**References:**

- Davis, M. (2006) *Planet of Slums*. New York: Verso
- Furedy, C. (1993) Working with the Waste Pickers: Asian Approaches to Urban Solid Waste Management. *Alternatives* 19(2), 18-23.
- Furedy, C. (1997). Socio-Environmental Initiatives in Solid Waste Management in Southern Cities: Developing International Comparisons. *Journal of Public Health* 27(2), 142-156.
- International Monetary Fund (IMF) (2009). The Implications of the Global Financial Crisis for Low-Income Countries. March, 2009.
- Levin, D. (2009). China now turning away other people's trash. *International Herald Tribune*, March 11, 2009 (online edition).
- McCormick, D., Schmitz, H. (2001). Manual for Value Chain Research on Homeworkers in the Garment Industry. *Women in the Informal Economy: Globalizing and Organizing* (WIEGO).
- Medina, M. (2007). *The World's Scavengers*. Plymouth, UK: AltaMira Press
- Sharma, G. (2009). Economic meltdown hits state women workforce harder. *ExpressIndia.com*, posted on March 16, 2009, Retrieved on March 16, 2009, from [http://www.expressindia.com/story\\_print.php?storyId=434887](http://www.expressindia.com/story_print.php?storyId=434887)
- Sudhir, V., Muraleedharan, V. R., & Srinivasan, G. (1996). Integrated Solid Waste Management in Urban India: A Critical Operational Research Framework. *Socio-Economic Planning Science* 30(3), 163-181.
- Wilson, D., Velis, C., & Cheeseman, C. (2006). Role of Informal Sector Recycling in Waste Management in Developing Countries. *Habitat International* 30, 797-808.

## ***Biography***

Katrina Mitchell is a master's student in urban and regional planning at the Humphrey Institute of Public Affairs. Her research interests are in international sustainable development, specifically community-based planning and people-centered infrastructure development. She sees waste as a resource and is interested in challenging conventional approaches to waste management to effectively deal with the social and political aspects of waste, while also benefitting economic and environmental resources. Katrina has taken coursework on international development, program evaluation and impact analysis, demographic and econometric analysis, participatory planning processes, sustainable development, community and economic development and environmental planning. Her passion for sustainable community development led her to India in 2007 where she spent the summer providing program development and administrative assistance to the staff of two NGOs working in the area of economic development, social empowerment, and sustainable livelihoods.

Katrina currently consults on aspects of organizational development and programming with a U.S. based non-governmental organization, Global Community Development, working on infrastructure and community development projects in Honduras. She is an independent urban planning consultant working at the intersection of economic development, infrastructure and the environment. She has worked on projects ranging from regional economic analysis using an industry cluster approach — emphasizing the importance of innovation, networks and collaboration in creating a globally competitive economy — to preparing green infrastructure and development suitability analysis using maps to help communities support both their growth and their conservation goals. In 2008, Katrina was a major contributor on an award winning research team analyzing workforce, economic development and environmental performance criteria for the Minneapolis and Saint Paul Mayor's Initiative on Green Manufacturing. Prior to becoming an urban planner she managed projects and teams in the fast-paced world of advertising. Katrina is a fine art photographer and has a BS in Art from the University of Wisconsin-Madison.

Consortium on Law and Values in Health, Environment the Life Sciences  
**Budget for Student Proposals**

**Project Title: The waste scavengers of San Pedro Sula, Honduras and the effect of global market change on informal recycling activities**  
**Applicant: Katrina Mitchell (mitch445@umn.edu)**

Instructions: add rows for multiple personnel.		Requested funding	Matching/other funding	
Category	Description & justification	Amount	Amount	Source
<b>Personnel</b> <i>Explain what hourly wage &amp; fringe are based on--departmental, community or other rate?</i>	Salary = 320 hrs x 20.00 hrly wage		6400	Personal funds
	Primary investigator*			
	Salary = 320 hrs x 10.00 hrly wage	3200		
	Local translator, will accompany primary investigator, provide simultaneous translation of interviews and facilitate connections with community leaders and business owners.**			
	Salary = 20 days @ \$50/day	1000		
	Local driver required on days in the field. The driver will also provide extra security as the dumpsite is remote and can be dangerous.			
	<b>Subtotal</b>	<b>4200</b>	<b>6400</b>	<b>Personal funds</b>
<b>Supplies &amp; Services</b>	Gifts for study participants, 200 @ \$0.50 each for scavengers (equal to approx. 1 hour of work) plus 20 @ \$3.00 each for business owners and officials.	160		
<b>Equipment</b> <i>Equipment costs are allowable only if the justification clearly shows that the equipment is necessary for the project. Include explanation of what will happen to equipment at completion of project.</i>	No special equipment will be purchased.	0		
<b>Travel</b> <i>Travel costs must include a description of the purpose of the travel, start and stop dates of travel, transportation costs, housing costs, and allowable per diem (use University rates found at <a href="http://travel/umn.edu">http://travel/umn.edu</a>).</i>	Airfare (2 round trip tickets to San Pedro Sula) <sup>1</sup>	1000		
	Lodging <sup>2</sup>	200		
	Food <sup>3</sup>	400		
	In-country transportation <sup>4</sup>	1000		
	<b>Subtotal research supplies, equipment, travel, other</b>	<b>2760</b>		
<b>TOTAL BUDGET</b>		<b>6960</b>	<b>6400</b>	

\* Based on 2 weeks of work in May and 6 weeks of work in July/August. Hourly rate is comparable to that of a research assistant at the Humphrey Institute, and other work I will perform in Honduras.

\*\* Spanish spoken by locals can vary widely depending on the background and origins of the person. Locals tend to have quite different vocabulary and accents. A professional translator sourced locally is needed to facilitate communication.

1) Airfare to San Pedro Sula, Honduras from Minneapolis, MN for preliminary fieldwork(May) and primary fieldwork (July/August) at \$500. There are many flight options on Orbitz.com in the \$352 to \$639 range as of 3/6/2009

2) I have access to free housing near San Pedro Sula (in Villanueva) and will use that most of the time. On occasion I will need to be closer to the study community and will stay at a nearby residence hotel (estimate approximately 10 nights at \$20 per night)

3) Estimate per diem food expenses at \$10

4) The dumpsite is not readily accessible by public transit. To maximize research time and for safety reasons I will need to rent a 4WD vehicle and driver (estimate 20 days at \$40 per day)