Service Learning and Climate Change in the Mekong Delta
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Background
Service Learning: A learning style that combines learning and reflection while meeting community needs. It enhances an understanding of oneself through structured critical reflection that assesses the needs and goals of a community.
Mekong Delta: With over 17 million people, the Mekong Delta is located in Vietnam’s southwestern region. It is the country’s main agricultural region, producing a majority of its rice (53% of national production), fruit (75%), and fish (80%). Because a majority of the Delta is under 3m in elevation, it is one of the most vulnerable regions in the world.
Anthropogenic Climate Change: As a result of human fossil fuel dependence, the global average temperature has increased by more than 1.5°F since the 1800s. This has resulted in changing precipitation patterns, melting glaciers and sea ice, and sea level rise, among other things.

Fall 2016: Pre-Departure
Culture/Language Component (VIET 1300): Discussed and reviewed the culture and history of Vietnam. The goal of this course was to familiarize students with Vietnam and daily life in the Mekong Delta. We also studied the Vietnamese language to aid in communication while in-country.
Climate Change Component (ALS 3600/ASIAN 3360): Learned the basics of climate change and the implications for agriculture and food systems. A series of speakers discussed the importance of service learning and critical reflection, with special emphasis on communication of climate change.
Guest Speakers: Richard Kiely, Hong Anh Vu, Pamela McEwhee, Lauren Chambliss

Objectives
1. To study the Mekong Delta’s resiliency to climate change and the ways it can be enhanced.
2. To spread the story of those in the Mekong Delta and garner a larger global response to the effects of climate change.

January 2017: In-Country
Service Learning and Climate Change Awareness in Vietnam
Meetings with Local Government Officials and Farmers
Met with government officials and farmers and learned about environmental policy and the varied approaches to agriculture and aquaculture.
Climate Change Lectures
Had the opportunity to learn about the most pressing issues caused and exacerbated by climate change (e.g. salt water intrusion, drought) from academic experts. We also learned of the potentially devastating future for Vietnam should climate change continue on its current trajectory.
Service Learning Activities
Participated in service learning opportunities including the implementation of a biogas digester in a farmer’s home, making of bánh tét (a traditional Vietnamese rice cake), and planting mango trees in a farmer environmentally damaged area.

Spring 2017: Post-Departure
Critical Reflection Component (ALS 3601/ASIAN 3361): The reflection period tasked us with two five page essays, one on the What/So What/How What in Vietnam, and the other on climate change’s impacts and local adaptations to those impacts. We then identified a topic of interest and developed a final project in the form of a paper and presentation, which was presented on Thursday, March 23 to end our Cornell in Vietnam experience.
Topics of our final projects
- Marc- The Future of Tropical Cyclones and Vietnam in a Warming World
- Gail- The Environmental and Human Costs of War in Vietnam
- Treijon- Phu- The Story Beneath the Surface

Conclusions
1. Communities in Vietnam maintain resiliency to climate change through innovation and adaptation. This includes switching from rice crops to fruit/vegetable farming and mangrove-shrimp farming which can withstand changing environmental conditions (i.e. salt intrusion). Other innovations include the use of biogas digesters which are environmentally and economically beneficial for farmers’ households and communities as a whole.
2. Service learning is a valuable tool that enables students to foster connections with new communities

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Developing Disaster Management Plan for Refugee community in Buffalo

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**PROJECT OVERVIEW**

This project aims at providing holistic access to safety measures in cases of emergency for all refugees and immigrants in Buffalo, NY. This will be done through a comprehensive plan that includes the following:

- **Disaster Management**
- **Communications**
- **Human Capacity Building**

**Valuable Outcome & Findings**

Research shows that 40% of all learners respond better to visual communication. As it is also the most efficient way of communication. Visual communications has been used to publicize jobs on text-free websites that serve illiterate populations.

Accordingly, Maximum Emergency preparedness can be achieved through: an Emergency Kit, Constant access to information, and societal integration.

**Recommendations**

- Emergency information be disseminated through the use of visual and audio communication on local media outlets.
- The creation of integrated cooperation between refugees and Buffalo’s larger community through volunteering experiences.
- Emergency Kit preparation workshops to increase the preparedness of the community. These workshops would be lead by community volunteers.

**Impact & Sustainability**

Our deliverable is a trusted source of information that directly benefits the target audience.

It empowers communities that have been socially, economically, and linguistically marginalized.

It can be easily replicated across many cities and countries, especially due to the limited amount of text.

**JFS Mantra:**

"All are entitled to live with dignity and respect. All are entitled to live without fear or pain."

With over 106 languages within the Buffalo community, and low English proficiency and literacy levels, the refugee community finds itself in an extremely fragile position against disasters and emergencies. Indeed, research confirms that refugees and migrants are among the most fragile groups in such cases.

Our community partner, the Jewish Family Services of Buffalo and Erie County, has been devotedly providing health and social services for immigrants and refugees for 150 years.
Introduction
Through leadership training, one-time service events, and long-term service projects, BSL members link the real-world motivation behind academics to service’s larger impact on our communities.

Leadership Training
What? Advisory board-led trainings designed to develop members’ leadership, community engagement, and collaborative skills.
Why? To equip members to work effectively in their project groups and with their community partners.
How? Strengths assessments, team-building exercises, discussions of past projects, brainstorming, troubleshooting.

One-time Service
Volunteer events hosted by BSL in which Cornell biology students help local organizations with their missions. The goal is to foster long-term, sustainable relationships. Reflections are incorporated into the events.

Can You Canoe Cayuga?
Cayuga Lake Watershed Network, assistance at this annual canoe race.

Embrace the Lake
Cayuga Lake Watershed Network, spring Cascadilla Gorge and Creek cleanup.

AIDS Ride for Life
Southern Tier AIDS Program, dinner and setup at this annual cycling fundraiser.

Cancer Resource Center 5K
Cancer Resource Center of the Finger Lakes, booth setup for the annual 5K fundraiser.

Tough Turtle
Ithaca Children’s Garden, assistance at 5K obstacle course race and fundraiser.

4-H Duck Race
Cornell Cooperative Extension, booth and game setup at this fun, family-friendly event to raise money for the 4-H youth program.

Long-term Service Projects
BSL members work in small groups and collaborate with community partners to create and implement projects that combine their passions and creativity with a community need.

STEAM (Science, Technology, Engineering, Art and Math)
What? Partnering with the Greater Ithaca Activities Center (GIAC) to aid and teach kids in their after school program and help them acquire an interest in science.
Why? To introduce students to science using hands-on activities early on, to foster an appreciation for the sciences.
How? Biweekly visits to an after school program consisting of students in grades 2-4 to conduct lessons ranging from archaeology to the physics of water, using interactive activities designed by the STEAM team.
Next steps? Continue the biweekly workshops and expand the program with new members to maintain sustainability.
Want to learn more? Ask one of our student representatives!

Healthy Food for All
What? A partnership between Cornell students and the food security organization Healthy Food for All (HFFA), a nonprofit started by local farmers and the Cornell Cooperative Extension of Tompkin’s County.
Why? Our students fundraise, spread awareness, and help organize Harvest Dinners; in return, we’re able to connect with our community and learn valuable leadership skills. HFFA works toward ending nutritional hunger in Tompkins County for around 200 families.
How? HFFA subsidizes Community Supported Agriculture shares, which benefits local small farmers and families with limited income.
Next steps: We’re planning a Farm-to-Fork Harvest Dinner fundraising event on Cornell’s campus. To help organize the dinner, we were awarded the Ewing Family Service Award Grant.
Want to Learn More? Visit healthyfoodforall.org or ask one of our student representatives!

Cornell Public Health Initiative
What? A collaboration between a group of Cornell students and Cornell Health through a diverse set of public health initiatives.
Why? Our organization aims to enhance the physical and mental health of Cornell’s campus, improve the quality of care at Cornell Health, and promote a transparent and strong relationship between Cornell Health and the student body.
How? Through working with the directors of CAPS and Cornell health, our group is at the epicenter of health on campus to institute concrete changes for the betterment of Cornell’s public health.
Next steps: We plan on releasing public health videos for Cornell’s campus to educate students on the importance and relevance of health in their everyday lives. In addition, using funds from the Ewing Grant we received, we plan on expanding the organization in the Fall semester to further our collaborative efforts with Cornell Health.
Want to learn more? Visit https://health.cornell.edu or contact one of CPHI’s group members

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