The Cham Islands Marine Protected Area (MPA) for Community Research and Development has been piloting a number of community-based environmental management programs and projects to protect the health of the watershed ecosystem and provide long-term benefit to residents. In Cam Thanh, the MPA has focused on restoring ecosystem health through ecotourism, waste management, local craft production, agriculture, aquaculture and management of the Nipa Palm Forest. PSU has the opportunity to partner with the MPA in the future to conduct faculty and student research in support of these activities.

The memo is based on a meeting with Mr. Nhuong from the Farmer's Union as well as a three-hour tour led by Dr. Chu Manh Trinh and Mr. Le Ngoc Thao from the Cham Islands Marine Protected Area for Community Research and Development. The memo includes the following: (1) Summary of Cam Thanh Commune Characteristics and Programs (2) Potential Opportunities for Faculty and Student Research (3) Connection to Recent PSU Initiatives in Hoi An and Quang Nam Province (4) Draft Summary Notes from the Study Tour.
At the mouth of the Thu Bon River where the water enters the East Sea is Cam Thanh, a fishing and farming commune which has been working in the past few years to enhance its environmental and economic health through local land management and ecotourism. It is a working landscape with many hectares supporting agriculture, especially rice cultivation and aquaculture for fish and shrimp. Ecologically, the land serves as an important transition zone between the river and the East Sea with large swaths of wetlands. Subsequently, the commune is particularly vulnerable to flooding and structure damage from storms. Fresh water supply is another issue as the commune is susceptible to salt water intrusion and since it is at the end of the water line coming from the treatment factory upstream, some houses are forced to get their fresh water from neighboring houses.

One of the key indicators of environmental health in the commune is the condition of the Nipa Palm forests which thrive in the local brackish water and serve a suite of ecological services including water filtration, fish habitat, water temperature, flood and erosion control. Nipa Palm forests are also an important source of income for local residents from the sale of products made from its parts. Housing material for roofs and walls are made from weaving the leaves together and local handicrafts are carved from the trunk. Currently there are 70 hectares of mature Nipa Palms and 20 hectares of young Nipa Palms (which were recently planted in the last five years). The government set a target to restore 100 hectares of Nipa Palms to recover forest to resemble coverage roughly twenty years ago.
The Farmers Union serves as a primary organization to manage local resources and provides training on aquaculture and agriculture practices as well as emerging opportunities in agritourism and ecotourism. When we met with Mr. Nhuong he explained there are several teams from the Farmer's Union that help implement programs, the following are some examples:

- **Ecotourism tour guide training** is being supported to expand science-based education for residents to understand the ecology of the river in conjunction with English training for customer service. We visited a small ecotourism business which takes tourists on guided tours in fishing boats through the Nipa Palm forests. In the future, the MPA will work with ecotourism businesses to forecast demand for services and increase business sales.

- **Sustainable harvesting practices for Nipa Palms** implemented by locals working to balance the harvest of Nipa Palms with the ability of the plant to regenerate. Nipa Palm management is carried out through selective thinning to ensure the trees remain healthy for years to come.

- **Local garbage collection** is conducted to reduce the amount of trash entering the river. Garbage trucks cannot enter many of the hamlets of the commune and trash has been a problem to collect. Residents now pay the city for local collection employing two staff to reduce pollution.

Generally, ecotourism is creating urgency for many of these teams because there is a need to enhance the cultural landscape to make the commune attractive for tourists. As a result, Cam Thanh is investing in public spaces such as the handicraft village that will serve as a welcome center for tourists (pictured above) as well as diversifying activities and protecting the Nipa Palm and other natural plant species.
(2) Research Opportunities for Portland State University

Cam Thanh is a commune that has been experiencing local and international investment over the last few years to ensure the cultural landscape is preserved for the health of the river and the economy. Cam Thanh's ecological role in maintaining low impact land uses is crucial to the health of the river and subsequently the watershed. Models of sustainability that work in Cam Thanh can be scaled up to improve watershed health regionwide. Here are a few topic areas that could be explored in the future through research in partnership with PSU:

**Natural Resource Management Research Opportunities**
- Role of Nipa Palms in estuary health
- Role of Nipa Palm forest in coastal ecosystem protection
- Recovery of fish populations from Nipa Palm management practices
- Impacts of land conversion from agriculture to aquaculture
- Impacts of climate change on agriculture
- Environmental education curriculum development

**Social/Cultural Research Opportunities**
- Climate change adaptation
- Cultural heritage studies
- Self-sustaining food sources
- English skills training
- Social network analysis to show local capacity for EcoCity project implementation

**Economic Research Opportunities**
- Local production opportunities for green building materials
- Small-scale handicraft production
- Impacts of ecotourism
- Economic study of entrance fees to maintain visitor services
- Forecasting tourism demand on ecotourism
- Ecotourism capacity development
(3) Connection to Recent PSU Initiatives in Hoi An and Quang Nam Province

On 15/12/2009, City Council enacted Resolution No. 11/2009/NQ-HDND to formalize the intent of Hoi An to be a model EcoCity for Vietnam. UNHabitat has been working with Hoi An People’s Committee to develop plans to ensure each ministry is working to integrate EcoCity goals into local projects and processes. PSU has served as a consulting institution to shape goals for EcoCity planning and development through research, student and professional exchange and community engagement with the following major activities:

- In September 2010, PSU and UNHabitat hosted a **scoping workshop** to share model sustainable development practices that could be adapted to the Hoi An context.
- In September 2011, PSU and UNHabitat hosted a **leadership training workshop** for implementation of the Quang Nam Provincial Development Strategy in Tam Ky.
- In September 2011, PSU and UNHabitat hosted an **Atelier** in Hoi An to engage a wide representation of community and regional stakeholders to analyze EcoCity goals utilizing the EcoDistrict framework.
- In July-September 2011 Atelier, PSU and UNHabitat funded Masters of Public Administration **graduate student intern** Sou Souvanny to develop community profiles to understand the context at the commune and ward level.
- In September-December 2011 to follow up on the Atelier, PSU and UNHabitat funded Masters of Public Administration **graduate student intern** Ashley Hollenbeck to develop a guide on how to engage the local community in climate change adaptation and conduct research to inform a section of the Quang Nam Province Development Strategy on watershed management.
- In March 2012 Dr. Marcus Ingle **Director of International Public Service** participated as an advisor for the Vulnerability and Adaptability Assessment Workshop based on research conducted by Vietnam National University.
- In July-August 2012 Masters of Public Administration **graduate student intern** Matthew Shane worked with ILO and DAS in Tam Ky to conduct surveys and market studies to develop ecotourism strategies.
- In July-September 2012 **ISIS Climate Change Program Lead** Khanh Pham a Ph.D. Urban Studies student worked with UNHabitat to develop case studies to inform the Leadership in Climate Change workshop in Ho Chi Minh City and strengthened institutional relationships with DISED, Vietnam National University, APD/MPI and Ho Chi Minh Academy.
- In August-September 2012 **ISIS Eco-City Program Lead** Julia Babcock worked with local Hoi An organizations to document projects that demonstrate EcoCity goals as well as develop a series of memos with potential partner organizations for future research and pilot projects.
Upcoming 2012 Activities

- September-December 2012, Masters of Public Administration graduate student intern Erik Mandell will work from Hanoi and Hoi An with university partners to support the EMPA trip, work on a field project in Hoi An and further research opportunities.
- October 18-20\textsuperscript{th} 2012, Executive Masters of Public Administration students will host a workshop in Hoi An.
- October 20-28\textsuperscript{th} 2012, a delegation will come to Portland from Vietnam including:
  - Mr. Nguyen Duc Hai, the General Secretary of the Quang Nam Communist Party.
  - Mr. Tran Minh Ca, Vice-chairman of the People's Committee of Quang Nam Province
  - Mr. Le Van Giang, Chairman of the People's Committee of Hoi An City
  - Prof. Dr. Mai Trong Nhuan, President of the Viet Nam National University (VNU - Hanoi)
  - Dr. Nguyen Quang, Habitat Programme Manager
  - Ms. Bui Thien Hien, UNHabitat Project Coordinator

All of these activities will help shape long-term strategic partnership goals in Hoi An to mutually benefit research and professional exchange in the future.

(4) Draft Notes from Cam Thanh Study Tour

- The MPA is the intermediary between policy at the provincial level and implementation at the local level and works in Cam Thanh to improve the health of the river as it relates to sensitive species and plants in the Marine Protected Area.
- Many of the farmers have been converting their land for aquaculture which has saturated the market somewhat. Eventually locals and Vietnam generally want to export shrimp to places like Europe and the U.S. There is an interest in keeping a balance of fresh and salt water aquaculture as well as a diverse set of crops on the land.
- A multipurpose community center is being built in Cam Thanh as an entrance for tourists to get information and to buy local products such as handicrafts.
- To encourage more ecotourism, Cam Thanh is developing homestays, tours of the agriculture and aquaculture areas as well as shops and restaurants.
- The Nipa Palms are strategically the most important plant species in the area as they serve a number of ecological services for water quality. The Nipa Palms take about five years to reach maturity and are primarily threatened by pollution and extraction. Improving environmental education in the commune, which already underway should help to minimize both of these threats. An early
initiative of the Farmers Union was to reduce the use of insecticide and pesticide. The target is to have 100 hectares of healthy Nipa Palms.

○ Cam Thanh is connected to the factory upstream which cleans and pipes water to Hoi An. However, since it is at the end of the link many of the houses struggle to pump an adequate water supply during the dry season. The water flows to the lower houses and some of the houses higher up in Cam Thanh have to pay their neighbors for water use.

○ GEF and the Administration Office helped to sponsor a local garbage collection conducted door to door. Two workers pick up garbage twice a week to bring to a central location for pickup. Each house pays fees to the city for this service.

○ We met with Mr. Manh who runs a small ecotourism business from his home to take small fishing boat tours around the Nipa Palm forests. Tourists can fish or simply paddle around and explore the area. He is working with some local hotels to promote his business and recently made a film about his tours as part of the UNCOP18 video for the conference in November.

○ On our last stop, we went to a house that is made entirely of bamboo, I called it the bamboo palace. It is a place for tourists to gather for drinks and to relax. The owner also sells and showcases local bamboo products.