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The Role of the Local Community in Integrated Conservation with Development Projects

A Case Study of the Phu My Lepironia Conservation Project



Source: (Tran, 2008)

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SIT Vietnam: Natural and Cultural Ecology of the Mekong Delta
Spring 2009

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Abstract

Recognizing the connection between local communities and conservation areas, Integrated Conservation with Development Projects (ICDPs) are being developed across the world to simultaneously address conservation and local development goals. Through a case study of the Phu My Lepironia Conservation Project (an ICDP) in Kien Giang Province, Vietnam, this study aimed to examine the nature of the role of the local community in ICDPs, the factors affecting this role and the impact this role is having on the conservation project. Participant observation and open-ended interview techniques were used to achieve this aim.

The study found that, despite the goal of the conservation management staff to build a strong relationship with the local people and eventually hand over management to community members, the current role of the local people is very limited and almost entirely economically focused. A myriad of complex, interconnected factors were found to contribute to this role and to the overall low level of awareness and understanding. This limited role had important repercussions on the distribution of benefits from the Project as well as conflict management.

The results of this study were useful in providing an understanding of the current state of the community-Project relationship in Phu My and a potential basis for decisions concerning the future of the Project. It also adds to the growing body of case studies concerning conservation management around the world as researchers and conservationists try to find holistic solutions that positively influence both environmental conservation and local communities.

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I must of course offer my sincerest appreciation to Ms. Kieu Thuy Tien, who travelled all the way from Can Tho to be my interpreter, as well as all other interpreters who worked with me in Phu My.

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I. Introduction

A. Discussion of Study Question

Study Question: What is the role of the local community in integrated conservation with development projects and what is the relationship between the local community and the project?

As population and development pressures continue to increase, the issues surrounding threatened ecosystems, biodiversity loss and conservation are intensifying. At the same time, these pressures are also affecting communities across the world that depend on the natural resources associated with these threatened ecosystems. These issues are especially relevant in Vietnam where political, economic and environmental changes are accelerating at a rapid pace.

How are projects created to conserve biodiversity affecting the local communities dependant on the natural resources of the conservation areas? Is it possible to avoid conflict and to find holistic solutions that positively influence both environmental conservation and the local people? This study aims to address these kinds of questions by analyzing the role the local community plays in integrated conservation with development projects (ICDPs) and the extent to which the values, knowledge and goals of the local people are contributing to the overall management of the project.

To tackle this research question, I will investigate local people's perceptions of the conservation project's goals as well as their perceived role within the project. I will look at how the project and the local community are dealing with the issues of the rights and regulations concerning resource use. I will also examine how benefits from the project are distributed and look at the perceptions and opinions concerning their distribution. Finally, I will attempt to describe and analyze the factors and agents that are affecting and contributing to the role of the local community in an ICDP.

I have chosen to analyze this issue through a case study of the Phu My Lepironia Wetland Conservation Project. Established in September 2004, little to no social science research has been done on this project and I hope that my case study will contribute to the growing body of case studies on conservation projects across the world. I also hope that this research will contribute to an understanding of the strengths and weaknesses of the current Phu My Project management plan and how it can be improved in the future.

B. The History and Issues Surrounding the Intersection of People and Conservation

The meaning of conservation and the idea of how environmental conservation should relate to local people varies widely. To understand the different philosophies and ideas underpinning the wide array of conservation management strategies, it is important to look at the history of the international conservation movement as well as how ideas of conversation vary across cultures.

In the 1960s and 70s, the Western idea of conservation management tended towards a preservationist approach. Nature was seen as a "pristine area" (Dove *et al.*, 2005) that needed to be protected from the "meddling hand of man." People were perceived to be "separate from nature and intrinsically destructive" (Dove *et al.*, 2005) This kind of exclusionary approach often led to the adoption of militaristic tactics and infrastructure to keep people out of conservation areas, sometimes described as the "fines and fences" approach. On the other hand, research has shown that other cultures view the idea of conservation, and of nature itself, very differently. A study of the Batek people of Malaysia, for example, revealed that for them their was no distinction between "nature" and "culture" - they view these as entirely interconnected (Dove *et al.*, 2005).

Critics of exclusionary conservation argue that this conservation strategy is elitist and ethnocentric in that it imposes Western values on other peoples. Claude Martin, a former director-general of WWF International, compares traditional conservation it to a form of imperialism, explaining that "imperialism imposed a system of development that took little or no account of the rights and needs of local people. Too often, that same charge can be leveled against conservation projects" (Pearce, 2003). Furthermore, many studies suggest that human disturbance can actually play an important part in increasing the biodiversity of a system (Dove *et al.*, 2005). Exclusionary conservation fails to understand the dynamism of the natural world by attempting to 'freeze' an ecosystem in a particular state. Critics also argue that this approach can be self-defeating and unsustainable since resources will have to be continuously spent on keeping excluded people out of the protected area.

Yet to this day supporters of exclusionary conservation, such as Dr. Terborgh of the Center for Tropical Conservation at Duke University, argue that "even indigenous peoples erode the biology of reserves. Natives may have hunted for thousands of years without destroying many species, but now they have guns as well as chainsaws and medicines that unleash a

"demographic explosion"" (McKibben, 1999). They assert that, in today's world, exclusion is the only way of ensuring ecological conservation.

By the 1980s, there was a shift by international conservation organizations to create integrated conservation with development projects (ICDPs). This heralded a change from "seeing rural people as ignorant instruments of environmental degradation to seeing them as unwilling instruments" (Fisher *et al.*, 2005). Many early ICDPs were concerned with providing alternatives to natural resource use in protected areas and tended to continue to keep protected areas free of local inhabitants.

ICDPs were seen to have a large number of weaknesses. Some argued that the ecological impacts of many common ICDP activities, such as the use of non-timer forest products, were not well enough understood and ICDPs did not have strong enough biodiversity monitoring programs. In addition, the economic benefits generated by ICDPs were not large enough to act as an incentive to keep people from using protected resources. There were also questions about the equitable distribution of program benefits. Furthermore, in many cases, management strategies were thought to be unsuccessful because they weren't supported by existing government policies and legislation (Fisher *et al.*, 2005).

To attempt to address some of these issues, some ICDPs have adopted strategies of community-based natural resource management (CBNRM). CBNRM is often thought of as a 'bottom-up' approach to conservation. Here local people are directly involved in the management of their resources and are given authority in decision-making processes.

CBNRM-based conservation can vary in the legal issues surrounding resource ownership, the power and decision-making authority given to local people in relation to other stakeholders, the dominant objectives of conservation as well as the processes by which rules and regulations are created and enforced.

Research on the effectiveness and sustainability of community-based conservation has largely focused on case studies. These case studies range from the use-based community conservation of turtle nesting grounds in Costa Rica (Campbell, 1998) to the adoption of community conservation programs at a tiger reserve in India (Gubbi *et al.*, 2008). Findings of these studies included the need for more effective biodiversity monitoring as well as warning of the romanticizing and oversimplifying of the idea of "community conservation" (Campbell, 1998). These projects and their effects on communities can be very complicated and research is

needed to determine what makes certain community conservation projects successful and others not, as well as what exactly it means for a project to be successful.

At a Mekong River Commission Workshop focusing on reviewing protected areas in the countries of the lower Mekong River Region, the participants acknowledged the "history of conflict between protected area agencies and those who rely on protected areas for livelihood." The Workshop participants also recognized a "need for governments and communities to cooperate in achieving sustainable resource management in and around protected areas" (2002 Review). Thus there seems to be a movement of governments in Southeast Asia towards more community-based conservation.

Some proponents of CBNRM argue that this method is successful when it redefines the issues associated with conservation. Instead of viewing local people as the problem, it sees "local rural people as the *solution* to habitat degradation" (Horwich & Lyon, 2007). The common ICDP question of how to best "balance conservation against socioeconomic development" is the wrong question to ask.

It is clear that there are many issues and contentions surrounding conservation management and the appropriate role of local communities in conservation projects. I hope that my research will contribute to a greater understanding of the involvement of communities in conservation and help to analyze the strengths and weaknesses of the Phu My Project.

C. An Overview of the Phu My Lepironia Conservation Project

Phu My is a village in Kien Giang Province and it is among the poorest villages in Vietnam. It also has the last extensive remnant of Lepironia wetland in the Mekong Delta and is a feeding place for the endangered Sarus Crane.

In 2002, with funding from the International Finance Corporation, a part of the World Bank, scientists and academics were able to conduct extensive surveys of both the ecology of the wetland and the socioeconomic level of the villagers (Tran, 2009). Based on this research academics, including Dr. Tran of the University of Natural Sciences in Ho Chi Minh City, objected to recent plans to convert the area into agricultural land. Not only was the area found to contain a unique and diverse ecosystem, but the research showed that the local people had little knowledge about rice farming and aquaculture. In addition, scientists argued that the potential acid sulphate soils would make it difficult for agricultural farming to be successful.

For many generations, the local villagers had been using the lepironia grasses to weave traditional mats. In September 2004, in partnership with the Kien Giang Provincial Government, the Department of Natural Sciences in HCMC and the International Finance Corporation of the World Bank, the 2,800 ha Phu My Lepironia Wetland Conservation Project was established, allowing the villagers to continue harvesting lepironia. In addition, villagers were trained to make diverse and more economically valuable products from the lepironia and were given assistance in marketing their products to tourists and higher-value export markets. In November, 2005 the first batch of lepironia products was exported to Japan.

The Project area contains approximately 350 households (Ni, 2004) from 4 hamlets (Kinh Moi, Tra Pho, Tra Phot and Tran The) of Phu My Village. The villagers who live in the Project area are 95% Khmer, an ethnic minority in Vietnam. The Project area lies approximately 7 km away from the Vietnamese-Cambodian border.

The management strategy of the conservation area is described to be the "creation of an "open" protected area where access to wetland resources continues in a sustainable manner" (Best Practices Database, 2006). In 2006, the project was awarded a UN-Habitat Best Practices Award. When Sarus Cranes were sighted migrating to the area, the Project also began to receive significant funding from the International Crane Foundation.

The land was split into 4 key functional areas, as can be seen in Figure 1. Any agricultural land in the area was allowed to remain, effectively freezing the area in its 2004 condition. While access to the wetland area is described as open, some ecologically unhealthy wetland was put aside for "ecological recovery" (this is the light green area in Figure 1 below).

The Project employs an on-site manager and accountant as well as a marketing executive based in Ho Chi Minh City. There is a Project Steering Committee, composed of academics and government officials, that meets every 6 months to oversee the management of the Project.

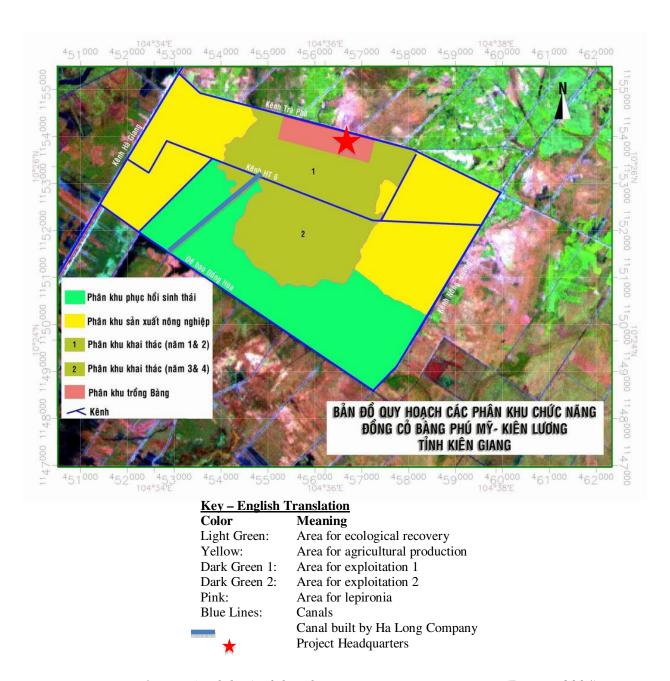


Figure 1. Map (with key) of the Phu My Lepironia Project area (Duong, 2004)

II. Methodology

A. Methodology and Rationale

This study involved understanding and analyzing the perceptions, values, ideas and opinions of a variety of people. I thus chose to use participant observation and open-ended interviews as my methodology.

I spent 2 weeks living in Phu My Village at the Phu My Lepironia Conservation Project's headquarters. The first 5 days I utilized only participant observation to begin to understand the community and to build relationships with those involved in the Project. I spent time with Project managers and explored the conservation area. I also went to the local market, pagoda and visited neighbor's homes as an introduction to the community structure and the way of life of the people. At the Project headquarters I got to know the women making the handicraft products and even learned to weave mats myself. Due to the language barrier, the participant observation period was largely about building relationships and less about gathering information. However, due to the politically and culturally sensitive nature of the ethnic minority community and the fact that the community had had relatively little contact with foreign visitors, I felt that this period was extremely important in ensuring the success of the subsequent interview portion of my research.

The participant-observation period also allowed to me to build a relationship with some of my translators who I would work with during interviews. My main Vietnamese-English translator was Ms. Kieu Thuy Tien; an experienced translator with whom I have a very strong relationship and have worked well with in the past. Due to the fact that not all community members speak Vietnamese, I also needed a Khmer-Vietnamese translator for 38% of the interviews I conducted. The 3 Khmer-Vietnamese translators I used were all workers at the Project's handicraft business and I thus used the participant-observation period to get to know them.

Aware of the inherent difficulties and limitations associated with open-ended interviewing, I followed some of Harry Wolcott's suggestions during the interview period of my research. This included attempting to be a "creative listener" and working to make the speaker feel as comfortable as possible (Wolcott, 1995). Thus, even though the interviews were mainly in Khmer and/or Vietnamese and I understood very little while the subject was speaking, I always

attempted to give the impression that I was interested and engaged. I also avoided rushing to fill every silence and recognized that sometimes people need a few moments to think before answering. This was important as it gave subjects a chance to expand on their previous answers and to bring up aspects of the interview that were especially pertinent to them. Realizing that every researcher enters the fields with preconceptions about what they are researching and that everything one observes is seen through the lens of one's own culture, I strove to keep an open mind throughout the study.

Although I prepared a number of interview questions, these questions were only used as a guide (see Appendix). I tried to maintain a conversational feel to all interviews to make the subject feel as relaxed and comfortable as possible. I allowed the content and the flow of the interview to match what the subject was comfortable with and what was important to them (Rubin, 1995). Although this method meant sacrificing some degree of uniformity and consistency in my interviews, I believe that it was the most appropriate and effective methodology considering the nature of my study and the community in which I was conducting the research.

I recorded all observations and data gathered in my Work Journal. To analyze the data, I used Excel to organize basic quantitative information the interviewees gave me and sorted the qualitative data into categories, allowing me to make comparisons and conclusions.

B. Interview Subjects

I spent a total of 7 days conducting 24 interviews that each lasted between 45 minutes and 2 hours. About half of the subjects were randomly selected while either walking or travelling by motorbike through the community. The other half was chosen with the aide of the Project manager in order to ensure that I interviewed a wide variety of community members.

I interviewed 2 members of the Project Steering Committee, 2 members of the Project management staff, 2 local government officials and 18 local community members. The members of the Steering Committee were Dr. Ni and Dr. Tran, both professors at universities. The Project management staff were the manager and the accountant. One of the local government officials served as the leader of the hamlet for 10 years and the second government official is the head of the Health and Population Committee in the local government and the former chairwoman of the Phu My Women's Union.

Of the local community members, I attempted to interview as wide a variety, in terms of age, gender, occupation, ethnicity and socioeconomic status, of people as possible. Interview subjects were chosen from each of the 4 hamlets of Phu My Village that make up the project area. Table 1 shows key information concerning the local community members I interviewed.

Table 1. Information concerning local community members interviewed.

Category	Information
Age	19 – 62 years old
Gender	72% women, 28% men
Ethnicity	22% Kinh, 78% Khmer
Main source of household income	78% rice farming, 6% teaching, 6% selling lepironia, 6%
	monk in pagoda, 6% unknown
Land ownership	94% owned land

C. Methodology Critique and Limitations

After beginning my study I became acutely aware of the limitations associated with using a translator, especially when dealing with abstract and complex issues, such as perceptions and regulations. It is very likely that the meaning or details of a question or answer was at times lost in translation. Furthermore, with abstract issues such as perception, the choice of terminology and words used by the subject can often be very important and the impact and meaning of these choices is almost impossible to comprehend after translation. A limitation specific to this study was that my Vietnamese-English translator was not from the local area so sometimes she had difficulty understanding local terms and phrases. Furthermore, 38% of interviews involved the use of two translators, compounding any misunderstandings or confusions.

Secondly, as the interview period of my research progressed and I became more familiar with the issues and more experienced in interviewing, it is likely that my interview technique and my choice of interview questions improved. It is also likely that the abilities of my translators improved with practice. Thus it is possible that more accurate and pertinent information was obtained from those subjects who happened to be interviewed nearer the end of the interview period.

Dealing with abstract and complex issues meant that many of the answers subjects gave were very ambiguous and could have been interpreted in many ways. I tried to be conscious of this while conducting interviews and analyzing the data gathered.

A further limitation was the limited time available to conduct this research and the subsequent relatively small sample size. In a subject as complex as this, it would have been possible to spend a much longer period of time conducting interviews and hearing the opinions and perceptions of a much wider range of the local community.

Lastly, the selection of many of the interview subjects was done with the guidance of the Project manager. The role he plays in the Conservation Project and his relationship with community members is likely to have had an impact on the interview subjects selected. Yet, in my opinion, the need for selecting as wide a range of interview subjects as possible overshadowed any bias created by his involvement.

D. Ethical Issues

Consultation with Dr. Andrew Wyatt led to the conclusion that this research study is exempt from IRB Review. Yet, with any research it is ethically essential to obtain informed consent from potential participants and to treat subjects, as well as their data, with utmost care and respect.

To obtain informed consent from my interview subjects, I prepared a document for my translator outlining the key details of my project as well as the fact that, if the person consents to be interviewed, they are free to discontinue participation at any time and they do not have to answer any questions they are uncomfortable with. I also ensured that I asked permission from all subjects before writing any information down in my field notebook.

In terms of identifying information, I only recorded the first names of the interviewees. In addition, I have chosen not to include the names in this paper to preserve the anonymity of the subjects.

At the end of every interview I allowed time for the subject to ask me any questions and attempted to answer all questions as honestly and fully as possible.

III. Findings

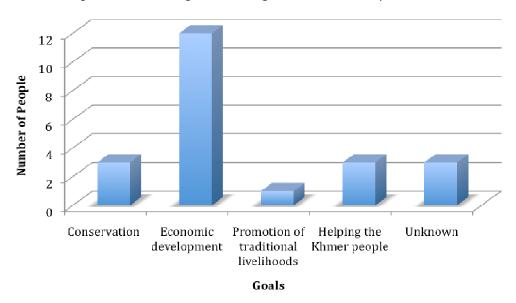
I have chosen to present my findings by grouping the information into a number of key categories or factors that have an influence on the role and perceptions of local people in the Conservation Project. This categorization has been undertaken to facilitate a thorough analysis of the data in terms of the main research question.

A. Perceptions of the Conservation Project

Answers from questions and conversations relating to the Phu My Lepironia Conservation Project revealed a wide array of perceptions and viewpoints concerning the goals, effects, management and even existence of the Project. In addition, there were considerable contrasts between what local people, government officials and Project management believed to be the goals of the Project.

According to Dr. Tran, the goals of the Project are wetland conservation and poverty alleviation. Conservation of cranes was not a starting goal of the Project but an indication of the "value" of the wetland. The more Sarus Cranes come to feed at the wetland, the healthier the ecosystem is. Both of the Project management staff, however, viewed the conservation of cranes as the main goal of the Project. The secondary goals of the project, the manager stated, are economic development and the promotion of traditional trade, without which the conservation goals could not be met. The ex-chairman of the hamlet's perception of the goals of the Project was very similar to that of the Project management.

The majority of the local people interviewed cited buying and selling mats and creating jobs for the local people as the only goal of the Project. Graph 1 shows the distribution of what local people perceive to be the goals of the Project.



Graph 1. Local People's Perceptions of the Project's Goals

Whereas 89% of local people interviewed had either seen cranes or heard about cranes, only 17% connected the conservation of cranes and protection of the wetland with the Project. Knowledge and understanding concerning Sarus Cranes was generally very low. Only 3 of the local people knew that the cranes came to Phu My to feed at the grassland.

Sixteen of the locals interviewed said that the life of the people had improved since the Project started. Many explained that this was because of the employment opportunities associated with the handicraft business. A few of the women interviewed mentioned that the 'pressing machine,' a machine that flattens lepironia grass so it can be used to weave mats, has greatly improved their lives. Before the machine, women used to have to spend hours pounding the grass with sticks to flatten it. Others mentioned that people don't have to travel so far now to sell their mats and that the Project sets a reliable price and a standard for the mats, creating a more stable income for women. One person explained that life had not changed since the Project began, yet this person was involved in a conflict with the Project at the time of the interview.

The only person to not have heard of the Project (the other "unknown" answer came from the conservation 'guard' or 'ranger' who refused to answer the question) at all was the only person to own no land. Interestingly, this person was also the one who relied most heavily on lepironia for her livelihood.

Overall, the data indicated that almost all the local people saw the Project purely as a business venture. This financially centered view is demonstrated by the fact that, in the village,

the Project is known as the "cong ty bang," which in English means the "lepironia company." Both Dr. Tran and the management staff acknowledged the lack of awareness in the local community about the purpose of the Project.

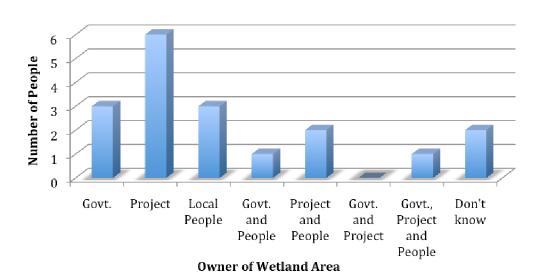
B. Resource Ownership and Rights

The issues and varying perceptions surrounding resource ownership and rights began before the Project even started. According to one man, for example, the wetland area today has always been a wild area. In the past, the government tried to settle people there but no one wanted to move to such a remote area. In 2004, when the Project started, the government gave the Project this wild land since it belonged to no one.

Conversely, two others stated that they had grown rice in the wetland area for many years and stopped when the Project began. One said that they stopped because the staff of the Project asked them to and the other explained that they stopped growing rice in around the year 2000 due to heavy flooding.

Another woman described her friend whose land was taken from her without compensation in 2004 to turn into the conservation area. When asked about compensation problems, Dr. Tran explained that there were relatively few compensation claims at the onset of the Project because the land set aside as the conservation area was almost entirely wetland. Any agricultural land in the area was allowed to remain, effectively freezing the area in its 2004 condition. This agricultural land is denoted by the yellow color in Figure 1 (see p. 12). Yet Dr. Tran, as well as the Project manager, admitted that there were some isolated claims that the wetland area belonged to various local people and that these people felt they deserved compensation. As far as they know, these people never received compensation because they did not own land certificates for the land they claimed to be theirs.

When asked who owns the wetland area in Phu My Village today, local people gave a variety of answers, as seen in Graph 2.



Graph 2. Local People's Perceptions of Land Ownership

The Project manager said that the land is owned by the government but is split between different families. According to the manager, the Project currently rents 80 ha of this land, which serves as the conservation area.

Interestingly enough, Dr. Tran explained that the whole wetland area is currently owned by the government and is "open-access" land. This means that no individual families currently own any part of the wetland.

The differing perceptions of land ownership inevitably lead to contradictory ideas of the rules, regulations and rights concerning the wetland area.

Most people interviewed recognized that it was illegal to grow rice in the wetland area. Those who answered that they did not know about this rule either were currently involved in a conflict with the government or knew very little about the project and the land. Some of those who believed the land was split between families thought that it was also illegal to harvest lepironia from other people's land.

This belief had particular importance for the woman who owned no land and relied on lepironia harvesting. Four to five days a week, this woman travels 2 hours to reach a lepironia area where she can pull lepironia without the "owners of the land" getting angry. About once a week, she transports the lepironia she pulled to Cambodia to sell because she can get a better

price in Cambodia than in Vietnam. This journey takes her about 15 hours and she travels by bicycle.

C. Values Placed on Natural Resources

It became very clear that in Phu My Village, land is a critical part of the socioeconomic fabric of society. Local people often described a person's level of poverty by the amount of land they own and, of those interviewed, all except the teacher and the monk relied on the land as their main source of income. This reliance on the land resulted in two main factors that I believe heavily influence the role the local community plays in the conservation Project. The first is the high levels of awareness and knowledge concerning the land and its properties and the second is the different, and often strong, opinions concerning the appropriate use of the land.

Every local person interviewed, including the teacher and the monk, knew about the problems caused by the acid sulphate soil prevalent in the area. Most were able to discuss methods, such as digging canals and washing the acid away, to remove or "clean" the soil. One woman mentioned that, because she only used traditional techniques, she had to rent her land to someone who knew how to use modern techniques to grow rice in acid sulphate soil.

This awareness had a large impact on how most people thought the wetland area should be used. Figure 2 shows the two main competing uses for the land in the village – grassland and agricultural land. Every person interviewed, except the woman who owned no land, said that the life of the local people would be better if they could convert all the wetland into rice fields. There was general agreement, however, that growing lepironia is more stable than growing rice due to the acid sulphate soil. One woman gave the example of her sister who had to abandon her land because her rice crop failed so many times.





Figure 2. Competing Land Uses: Lepironia grassland (left) and canals for agriculture and aquaculture (right) in Phu My Village (Tran, 2008)

Despite the risks, the majority of local people still believed life would be better overall if they could grow rice instead of lepironia. Four local people explained that, while lepironia harvesting and mat making can provide a small daily source of income, you can save money earned from growing rice. Both the government official and the Project manager explained this sentiment by describing how local people have difficulties planning ahead and thinking of the future. When they see that the price of rice is high or they hear a story about a neighbor's successful rice crop, they want to plant rice, regardless of the risks.

Another factor that makes rice land more valuable than wetland is the fact that it is easy to harvest or "steal" lepironia from someone else's land. Two community members themselves admitted to obtaining their lepironia by taking it from what they believed to be other people's land. The majority of people own land at a distance from their homes, making it difficult for them to guard their land. This, combined with the economic incentives for growing rice, contributed to the major view that, despite the risks, rice land is more valuable than wetland.

The government official, the Project management and Dr. Tran all predicted that, if the Conservation Project had never been established, local people would have converted all the wetland into rice fields and shrimp farms by now. Dr. Tran believed that, using modern techniques and methods such as specialized rice species and fertilizers, people would have found a way to grow rice in the acid sulphate soil.

The only local people who thought that the life of the community would be better if the land remained as wetland were the woman who owned no land, the woman who's sister had been heavily impacted by acid sulphate soil and the monk, who explained that the instability of rice growing would lead to poverty.

As a side note, most community members made no distinction between the two types of grass, lepironia and eleocharis, despite the fact that lepironia is the only grass used to make mats. This may be partly due to the fact that the majority of the wetland consists of lepironia. The one person to make the distinction was the man currently involved in a conflict with the Project. He has attempted to grow rice on land with large amounts of eleocharis. He explained that, while lepironia land had some value for the people, eleocharis was of no use. He learned that cranes eat eleocharis when he was called to a meeting with the government to discuss the conflict, but he still believes growing rice to feed his family is more important than feeding cranes.

D. Conflict and Conflict Management

The strategies used for conflict management and the involvement of the local people seemed to strongly correlate with the general awareness of the project and understanding of land ownership and rights.

The Project manager explained that conflict between local people and the Project usually concerns attempts to grow rice in the wetland area. Dr. Tran added that the land in question is normally found at or near the border of legal agricultural land within the Project area. In Figure 1 (see p.12), this is the area that borders the yellow sections. Since the Project does not have the land certificate for the Project land and it is thus technically government land, the Project chooses to delegate all conflict management to the local, district and provincial governments. The Project manager added that, because he lives in the community, he does not want to get involved with conflicts as this could lead to tensions between him and community members. He does, however, employ people to guard or watch the wetland area and to report people who are attempting to grow rice.

The Project manager described the conflict management strategies used by the government as "coercive." These strategies include meeting with violators to discuss and explain the rules and sending violators official documents and letters. The government official and the chairwoman of

the Population Committee agreed that the best method for dealing with conflict is to talk to violators and "analyze" the situation.

A few community members had heard about conflict in the past but knew no specific details. Except those who had been directly involved in conflict, most were unaware of what happens to people when they are caught ploughing in the wetland. Opinions of the right course of action for dealing with violators depended on the interviewee's perception of the laws and awareness of the Project. For example, one of the handicraft workers suggested that violators should be fined because "everyone knows you are not allowed to plough in the Project area" while others has little to no understanding of who controls and regulates the wetland area.

In terms of the history of conflict, Dr. Tran explained that there are normally 1-2 isolated incidents a year that are normally fairly easily resolved. After community members are called to meet with the government, they stop growing rice. When I asked community members why they thought this was the case, one man replied that people become "scared of getting caught."

On March 30th, 2009, approximately 6 families were found digging and trying to grow rice in the wetland area, specifically the eleocharis area near the border of wetland and agricultural land. In Figure 1 (see p.12), this area is found in the lower western section of the map at the border of the yellow and light green areas. As far as the Project manager knows, this is the largest conflict in the history of the Project. So far, the families have met with the local government authorities and may potentially meet with the district authorities.

I interviewed the head of one of the households accused of ploughing in the wetland area. He explained that the wetland area where he ploughed had been his land since 1976, when he moved here. Although he does not have a land certificate, he, and the rest of the community, knows it's his land. He believes he should have the right to do what he wants with his land. His family is poor and he needs to grow rice to feed his 9 children. Before the meeting with the government officials, where they discussed the Project, he had never heard about cranes or about the wetland, even though one of his daughters is employed at the Handicraft Business.

According to the Project manager and to Dr. Tran, the increase in conflict this year may be at least partly due to an increase in the price of rice, making growing rice more profitable. If the price of rice stays high, Dr. Tran predicts an intensification of conflict in the future. This prediction was supported by the opinions expressed by at least 2 of the community members I

interviewed, who plan to or want to grow rice on "their land" in the wetland area in the near future.

E. Political Participation and Government-Community Relations

Even without extensive analysis, it is obvious that the government and governmental institutions heavily influence the awareness, understanding and consequently the involvement of local people in the Project. The reasons for and effects of this strong governmental influence will be discussed in the analysis section but for now I will try to outline what exactly this influence is, based on information gathered from interviews.

The majority of local people interviewed had very little contact with government officials and mass organizations. Only 22% of the households interviewed had a family member in a Union. When explaining why they were not in Unions, 3 community members stated that Unions had never "asked" them to participate. The woman who owned no land explained that she could not join in any Unions or participate in meetings because she had no residential certificate.

Most people, especially women, had never been to any kind of governmental or community meeting. However, the monk mentioned that there were sometimes meetings about the Project at the pagoda. One woman said that her husband had been to a meeting at a local schoolhouse where they has discussed the growing of rice in the wetland area. The Project manager was not aware of this meeting.

Both the government official and the Chairwoman of Population Committee stated that they tried to talk about the Project at all governmental events and meetings. The government official said he always talked about the importance of the Project and preserving the wetland while the Chairwoman of the Population Committee said she often talked of how women could find employment opportunities at the Project.

When discussing whether local people have any influence on the decisions made by the government, the government official stated that the government tried to gain the approval and agreement of the people. However, the Chairwoman of Population Committee responded that the government mainly just let people know about laws and rules. The people had no influence over or input concerning the decisions made about the rules and laws.

From discussions about conflict management and land ownership, it is clear that the Project staff and Dr. Tran considered the government as a kind of partner in the Project. According to

Dr. Tran, the government currently has official jurisdiction over the Project land. In addition, some funding and support for the Project comes from the Kien Giang government. Dr. Tran believes the government supports and cooperates with the Project and its goals because the success of the Project helps improve the government's reputation. In addition, the Project works with an ethnic minority in a National border region, which tends to be a sensitive area. Dr. Tran thinks that the government views programs that work to improve living conditions in these sensitive areas very positively.

F. Ethnic Diversity and Culture

One of the important factors that make the local community in this case study unique is the ethnic diversity and cultural practices of the people. The communities living in the Project area are approximately 95% Khmer and 5% Kinh, according to the Project manager. As I talked to villagers, I hoped to gain an understanding of what effect, if any, the minority status of the community members might have on their role in the Project and on management choices.

The economic development goals of the Project are met through the running of a handicraft business that uses lepironia to weave mats and create products. Every person interviewed recognized the weaving of mats as a Khmer tradition. All the Khmer women I interviewed knew how to make mats while the majority of Kinh women did not.

The tradition of making mats is passed down from mother to daughter in Khmer families. Almost all Khmer women I interviewed said that their daughters helped them to make mats. One woman, however, said that while she knew how to make mats, she did not want to teach her daughters. She hoped that they would focus on their studies and "find jobs in companies" when they grew up so that they would not have to live in the village and make mats.

The majority of Khmer people I spoke to considered themselves to be religious and visited one of the two Khmer pagodas in the village between one and three times a month.

No Kinh people I spoke to knew how to speak Khmer while there were very few Khmer people who were fluent in Vietnamese. Some Khmer people, especially older people, knew very little Vietnamese at all.

Economically, Kinh people in the village were perceived to have more money and land than Khmer people. The landless woman I interviewed said that all the landless people in the village are Khmer. In addition, the majority of people who worked in stores and shops in the village center were Kinh.

Politically, Kinh people were also perceived to have more influence. Both government officials I interviewed happened to be Kinh and one community member estimated the ratio of Kinh people to Khmer people in the government to be 50:50. I spoke briefly to the Head of Culture in the Phu My local government who was also Kinh. Of the Kinh local people interviewed, 50% were union members and of the Khmer people interviewed, 14% were union members.

Both Project management staff I interviewed admitted that it was difficult at times to work with the Khmer people. They attributed this to linguistic barriers and to the fact that many Khmer people have a low education. The Project manager gave the example that, even though the workers signed a contract allowing them to take only 3 days off, some workers took up to a month off for the Khmer New Year.

Despite these perceived disparities, I saw no evidence of any tension or hostility between the two ethnic groups. There was, however, an obvious separation between the two. Due to what was probably a combination of cultural and linguistic differences, Kinh and Khmer people tended not to intermarry and Kinh people would often associate with other Kinh people. The Khmer also tend to socialize within their ethnic group.

During the research period, I also attempted to ascertain whether the villagers held any cultural religious beliefs about the wetland area and the cranes. Most had never heard of any such beliefs but some workers at the Project mentioned that they had heard that you can predict when rain will fall based on the patterns made by flying cranes. One man said that he thought cranes were holy creatures in Kinh Buddhism, but he wasn't sure of the details.

G. Gender Issues – The Roles of Men and Women

In addition to investigating the role and perceived role of local people of different ethnic backgrounds, occupations and socioeconomic status in the Project, I also inquired into the different positions and responsibilities of men and women both in society and in relation to the Conservation Project.

In no other line of questioning was the issue of the distribution of benefits so salient. Bearing in mind that the majority of the community views the Project as purely a financial venture, the overwhelming response was that the Project benefits women more than men. This was due to the fact that the Project employed many more women than men (of around 54 workers at the Project, only 4 were men) and that women were the ones who used the lepironia to make mats. Figure 3 shows a common scene of women workers creating lepironia products at the Project headquarters.



Figure 3. Women making lepironia products at the Project headquarters (Tran, 2008)

When asked why only women in the community made mats, the common reply was that "men do the heavy work and women do the light work" and that women are more "skillful." The Project manager, who is a man, explained that he employed only men to run the 'pressing machine' and guard the conservation area because "men are stronger than women." Others added that it's the traditional way for women to make mats and for men to "grow rice and watch the buffalo." A key responsibility of women in this community was to "keep the money" of the household.

A question that served to further illuminate their different roles was whether life in the village was harder for men or for women. Half of those asked this question said that life was

hard for both men and women and that it depended on the family. The other half said life was harder for men because they have to work more and have more responsibilities.

The majority, with some exceptions, of the women I interviewed gave much shorter answers to questions than men and seemed hesitant to expand on their thoughts and give their opinion. The Chairwoman of the Population Committee explained that Khmer women were often very "shy" and gave the example of the reluctance of many Khmer women, as compared to Kinh women, to visit the family planning clinic.

A preponderance of people interviewed said that the Project had improved the lives of women by providing them with employment and money to spend. The women working at the Project told me that they enjoyed the work and it gave them a chance to spend time with other women in the community. Many predicted that they would stop working after getting married. The Project manager said that once women got married, they tended to quit their job and he would have to find and train new women to take their place.

One worker, however, felt that, although she liked working at the Project, her life would be easier if the wetland was converted to grassland and the Project no longer existed. She explained that with rice, women can stay at home and don't have to work so hard.

H. Education and Human Capital

Dr. Tran claimed that a future goal of the Project is to have it run entirely by the local people. Even if this means that the local people have to hire outside experts to work for the Project, the goal is still for local people to have overall control of the Project. When asked why it isn't currently community-run, he explained that there is very low human capital in the village, largely due to the low levels of education. The Project manager added that, when he resigns, he hopes to find a local person to train to take his place.

The idea of having a conservation project entirely community-run is the holy grail of many ICDPs. Having a local person manage the Project would most likely have an enormous impact on the community's role and perception of the Conservation Project. To understand the challenges the Project must face in order to achieve this goal, I spoke to local people about their thoughts concerning a community-run Project and to a primary school teacher about the education system in Phu My and what this might mean for the Project.

In Phu My there are primary and secondary schools but students must travel to Ha Tien to attend high school. There is government funding available to pay for Khmer children to receive a high school education in Ha Tien.

Since the schools in Phu My are public schools, all classes are taught in Vietnamese. At the primary level, only 2 of around 32 teachers are Khmer, the rest are Kinh. The majority of children enter the school system knowing very little Vietnamese, which makes teaching primary school very challenging. Approximately 90% of children graduate primary school, but the teacher believed that this rate might be higher if the classes were taught in Khmer. A worker at the Project told me that most of the women who worked there leave school between 5th and 9th grade. The teacher, however, added that while it can be challenging to keep Khmer children in the government education system, many Khmer children attend classes at the local pagodas.

In terms of environmental education, the teachers have to follow the curriculum set by the Ministry of Education, which focuses on the core sciences and has little specific environmental content. The teacher I interviewed mentioned that, at the end of the year, time is set aside to teach about the local culture and life. As far as she knows, no teacher has used this time to teach about the local wetlands and environment, although she thinks this would be a good idea. The teacher herself admitted she knew relatively little about the wetlands or the cranes.

The only time the Project works with schools is when it presents school supplies to the "poorest children" at the beginning of every school year. Dr. Tran explained that the Project also uses this time to talk about its goals.

When I talked to local people about the possibility of a community member managing the Project, one woman explained that this might not work. She said that she has seen the Project managers go out and look at the cranes but she has never seen local people do this. Also, in her opinion, local people only tend to work at the Project for a short period of time. A man working at the Project said he thought it would be a good idea for the Project to be community-run, as long as the person "knew enough."

I. External Influences

Many of the factors affecting the local community's relationship with the Project originate at the community level. There are, however, important factors affecting both how the community relates to the Project and how the Project in turn relates to the community that are to be found on national and global scales.

a. Corporate Influences

The many conflicting demands and values of the local community and the Conservation Project are further complicated by the interests of outside corporations. During one interview, a woman brought up the fact that a company, Ha Long Company, had recently dug an irrigation canal in the wetland area (the canal is denoted by a light blue line in Figure 1). This prompted her to believe that she might be allowed to grow rice there.

Dr. Tran explained that, soon after the Project was established, Ha Long Company began to dig a canal through the wetland area to provide irrigation for its shrimp farms to the south of the Project area. Dr. Tran called the government to protest but Ha Long Company has a strong influence over the government. The Chairman asked Dr. Tran to allow the building of the canal arguing that there is a "need to balance conservation and economic development." Due to the Project's relationship with the government, Dr. Tran felt he had to agree to let the company build the canal.

b. Influence of International Institutions and the Global Economy

Dr. Tran explained that the goal of the business is not to make a profit, but to share the benefits of the Conservation Project with the local community. Thus the business pays it workers and staff higher wages than they would earn in a similar for-profit company. In addition, the manager of the Project is trained in conservation, not in business, but is also charged with managing the business portion of the Project. To export its products to international markets, the business must work with a variety of middlemen, further reducing its profits. These factors most likely contribute in some way to the fact that the business earns very little profits and cannot cover the costs of running the Conservation Project.

Thus the Project relies heavily on international donors and, consequently, it depends on the international economic climate. Dr. Tran, the Project manager and the accountant spoke of serious difficulties obtaining funding this year due to the economic crisis. They are worried about what this could mean for the future of the Project.

One woman I interviewed complained numerous times during the interview that the Project no longer bought enough "chieu" or sleeping mats from her. The Project manager explained that there is no longer a very high demand for these types of mats and that they have had to reduce both the number of mats they buy from the local people and the number of workers they hire to work at the Project business.

c. Influence of Outsiders

Phu My Village is a very rural, ethnic minority community. Creation of the Conservation Project has led to the arrival of various groups of outsiders. The effects of these outsiders on the community must be considered when analyzing the relationship between the Project and the local community.

The first important group of outsiders that were mentioned many times during interviews was the Cambodians. Cambodian people come to Phu My on bicycle to harvest lepironia and buy mats from the local people. Many of the women I interviewed sold mats to Cambodians but generally at a lower price than the price paid by the Project. Dr. Tran explained that a key issue with Cambodians is that they often would cut lepironia of all sizes rather than pull adult lepironia plants. This practice has a negative effect on the health of the lepironia ecosystem and can result in unsustainable exploitation. This is in contrast to the local people, whose custom is to only pull adult lepironia.

The second important group of outsiders is researchers and academics. Some local people reported seeing foreigners and students in the area but none had ever made contact with them. The only subject who refused to be interviewed was a local 'ranger' or guard of the Conservation Area. He complained that a Vietnamese student had interviewed him before and that it had been a waste of time because no benefit had come from it. This experience made him very reluctant to be involved in any more research and his refusal to be interviewed seemed to put on a strain on his relation with the Project manager, who had attempted to arrange the interview between myself and the ranger.

J. Perceptions and Desires for the Future of the Project

Dr. Tran perceives the most pressing goal for the future to be obtaining the legal certificate for the Project land. He then hopes that the land can be distributed among households in the Project area with the provision that they practice sustainable harvesting. Sustainable harvesting, in his opinion, involves maintaining the lepironia and only harvesting a certain amount of lepironia a year. He hopes to create a system whereby a household will be forced to give up their land to another family if they violate the sustainable-use regulations for their allotted lepironia

area. This will create an incentive for self-regulation and enforcement of sustainable practices. If a household is seen violating any of the rules, another household can report them.

The local people's perceptions of and hopes for the future centered, unsurprisingly, on the business aspect of the Project. The majority of people appreciated the economic benefits and stability the Project brought and hoped it would continue to be a part of the community into the future. However, many local people expressed an uncertainty of how long the Project would run and this seemed to evoke some anxiety and concern in the interviewees.

IV. Analysis

In the findings section I described and discussed the key factors contributing in various ways to the role and perceived role of the community in the Project and the relationship between the Project and the local community. These factors included the perceptions concerning the Project, the different values placed on natural resources and the perceived effect of natural resource use on the lives of the people, perceptions and opinions of resource ownership and rights, conflict management, political participation and relationship with the government, ethnic diversity and culture, gender issues, education and human capital, outside influences and finally perceptions and desires for the future.

To address my research question about the role of the local community and their relationship with the Project, I now plan to analyze and draw conclusions about the findings. My research topic involves a dynamic and complex social, political, cultural, environmental and economic system and thus I believe it is most effective and informative to analyze these factors and findings together rather than individually. I hope that this will provide a deeper understanding of these findings and what they mean in terms of this study's main research question.

A. Current Roles

From interviews and discussion with Project management staff and with Dr. Tran, one of the founders of the Project, it is clear that the main goal is wetland conservation. In order to achieve this goal, the Project believes it is essential to work with the local people and "share the benefits" of the Project with them. Both the Project manager and Dr. Tran hope that in the future the Project will be run by the local community. Dr. Tran also described plans for transferring ownership of the area to the local people and for them to "self-regulate" and sustainably manage the wetland. In order to meet these kinds of goals, it is crucial to first understand the present state of the Project-community relationship and the community's current roles.

Within the larger community, there are many sub-groups that each assume a different role and relate to each other and to the Project in different ways. All sub-groups seem to relate to the Project as they would to a company or a financial enterprise. They thus tend to assume the roles of employees, buyers and sellers.

Women were perceived to have a much more prominent role due to the fact that the making of mats and manufacture of handicraft products is culturally considered to be part of the women's domain. The majority of men felt they had little to no relationship with the Project. The few men hired by the Project, however, saw their role to be partly connected to the conservation aspect of the Project as they were often assigned to go out and "guard" the wetland area.

Landless people, whose livelihoods were most dependent on the wetland area, seemed to have little to no relationship with the Project, both in terms of its conservation and business aspects. Although the Project was often perceived to have been created to "help" the Khmer people, the Project has hired and works with local Kinh people also. Finally, the local government representatives seemed to have the strongest connection to the Project in terms of conservation. They viewed their role as helping to meet the Project's conservation goals through regulation and information sharing.

Overall, the local community was found to have a very limited role in the Project and the roles people did assume centered almost entirely on the business aspect of the Project. I will now attempt to analyze the factors contributing to this limited and economically based role of the local community.

B. Analysis and Discussion of Current Roles

a. Awareness

A prominent theme throughout the entire research period was that of awareness. On the whole, local people had very little understanding of the goals of the Project and how the Project is managed. The limited understanding of the Project consequently led to a limited understanding of the regulations and rights and concerning the wetland area.

Without clear understanding and knowledge, it is unrealistic to expect the local population to participate in and support the Project. Furthermore, it is impossible for people to contribute their local knowledge and opinions and have any part in decision-making processes if they are not aware of the fundamental principles and basis for the Project and the land. Community members themselves stated that they were uncertain whether a local person could run the Project because they don't "go and see the cranes" and they might not "know enough."

The fact that local people and Project management have such different views about land ownership and their rights is likely to contribute to conflict. In terms of conflict management and generation of support for the Project's conservation goals, again, participation and local involvement is limited due to the lack of awareness and understanding.

Conflicting views and perceptions were even found at the Project management level. Whereas Dr. Tran explained that the wetland land is all "open-access" land and is not legally owned by any families, the Project manager believed that different households in the village had control over different sections of the wetland. The lack of consensus at the management level could potentially project a confusing image of the rules and regulations to the local people, adding another dimension to the lack of understanding.

The awareness level may also impact the role of local people by reducing the sense of stability in people's lives. Throughout the research there was a continuing emphasis on the importance of stability. When responding about changes brought about by the Project, interviewees spoke positively of the increase in financial stability in their lives. For those that believed that the life of the community would be better if the land was used to grow lepironia rather than rice, the lack of agricultural stability due to the soil conditions was a key factor in their decision. Phu My Village is situated on a national border in a politically sensitive ethnic minority community. Coupled with the dynamic and rapidly changing Vietnamese economic and social climate, it is possible to understand the basis for the value local people place on stability.

The majority of interviewees expressed uncertainty concerning how long the Project would be a part of the community. Support and interest in the Project may thus be hindered by this perception of an uncertain and unstable future. Lack of awareness of the Project's goals and future plans may thus negatively impact the relationship of the local community with the Project by inducing perceptions of instability.

b. Factors Affecting the Current State of Awareness

To understand the limited awareness and consequent limited participation of the local people, one must consider the image that the Project is projecting to the local community. Due to legal issues, such as the fact that the Project does not have a land certificate for the wetland area, Project management chooses to delegate conflict management and discussion of rights and regulations to the government. The Project manager also explained that he does not want to get involved in conflict issues to avoid creating tensions between himself and the community.

While the Project manager's decision to keep a low profile in the community is understandable considering the legal issues, it is also likely to have a major impact on the relationship between the Project and the local community. By delegating authority and responsibility to the government, the Project is not presenting a clear and open image to the community of what exactly they are doing in the community and why. Furthermore, there was little knowledge in the community of who the leaders in the Project are. This confusion concerning leadership is likely to make the Project seem inaccessible and contribute to the lack of awareness of and involvement in the Project.

Furthermore, the research showed that there is limited political participation in the community, especially by people of Khmer ethnicity. The Project's main method for awareness raising and conflict management focuses on working with governmental bodies and institutions, such as the People's Committee and the Women's Union. Considering the level of political participation by the majority of the population, the Project may need to consider nongovernmental methods of interacting with the local community.

The education system and the Project's relationship with local schools and young people is likely to also impact awareness. The Project manager stated that once a year he visits schools to give out gifts and talk about the Project. In addition, he has worked on environmental education issues with the Phu My Youth Union approximately 3 times since 2007. In the schools themselves, there is little focus on environmental education, especially on education specific to the local ecosystem and community. Furthermore, limited political participation and the challenges involved in working with Khmer children in a Vietnamese government educational system may reduce the impact that the Project has in its interactions with the youth.

Another potential contributor to the low awareness levels is based on cultural issues. Whereas 95% of the residents of the Project area are Khmer, there is a much higher proportion of Kinh people in the Project management staff, the government and the education system. Although no evidence of conflict or hostility was found, there was an obvious separation, based on linguistic, cultural and socioeconomic factors, between the two ethnic groups. The fact that so many of the authority figures and leaders associated with the Project are Kinh may make the Project seem in some ways inaccessible to the Khmer majority and decrease their level of involvement.

c. Distribution of Benefits

Based on the findings of the interviews and the observations made, I believe that how the benefits of the Project are distributed and perceived to be distributed also has a major impact on the role of the community.

Firstly, the dominant perception in the community is that the Project aims to improve the lives of the Khmer people. Indeed, Dr. Tran mentioned that part of the reason why the government so strongly supports the Project is that it impacts the lives of an ethnic minority community, which is seen as a politically sensitive issue. The majority of those I interviewed stated that in the village, Kinh people tend to have more money and own more land. According to the Project manager, the Project tries to "help" the Khmer people by providing them jobs and giving gifts to the local pagoda and to the poorest children at the schools.

Especially considering it's future goal of community-based management, the Project needs to be conscious of how exactly its attempts to "help" the Khmer people are perceived and what affects this has on its relationship with the community. Are the local people, particularly the Khmer people, seen as partners or recipients? This issue is, in my opinion, related to awareness. To avoid having the Project assume the role of a benefactor towards the Khmer people, there needs to be a sense of community ownership over the Project and what it's doing. The current low level of awareness makes this sense of ownership difficult to achieve and the Project, especially it's conservation component, is perceived to be far removed from the lives of the community. To create an equal and respectful playing field where benefits are truly "shared," there needs to simultaneously be a sharing of responsibility and involvement, which cannot be achieved without increased awareness and understanding.

Men and women in the community, and subsequently also in the Project, are perceived to have very distinct and specific roles. Women are perceived to benefit much more from the Project than men due to the fact that the Project employs many more women than men. However, there was still relatively limited awareness and understanding of the Project and its goals even among the women who worked at the Project every day. The fact that the Project works mainly with women in the community and is perceived to share the majority of its financial and economic benefits with them raises the question of why the Project does not also share its responsibilities and knowledge. To change the role of women from one of employee or "worker"

to one of partner or collaborator, the Project may need to expand its aim beyond the sharing of financial benefits.

The equitable and just distribution of benefits is an important goal for creating a constructive and sustainable relationship with the local people. Research found that limited awareness and knowledge of the local people had important impacts on this distribution. The key example was that of the landless woman who believed that all the wetland area was privately owned. She travelled far from her house every day to find an area to harvest lepironia without the "owners" stopping her. Dr. Tran, however, explained that all the area is legally "open-access" and doesn't belong to any single person. This woman is unaware of her rights due to the misunderstanding concerning land ownership and regulations. Until all those affected by the Project understand the rights, rules and regulations, it is likely that the distribution of benefits may be skewed. This will affect the relationship between the Project and the local people and could contribute to future conflict.

d. External Factors

Issues concerning awareness and the distribution of benefits mainly involved community-based factors. However, as discussed in the findings, there are external factors that also impact the role of the community.

Some of these factors, such as the global economic climate, are difficult for the Project to control. Others, such as the influence of corporations and outside groups, are within reach of the Project's influence and should be carefully considered and analyzed.

The case of the canal built by Ha Long Company is a pertinent example of the economic and political pressures that threaten any kind of conservation project. The government's request that the Project "balance conservation and economic development" is one that the Project will likely have to face numerous times in the future. Based on my findings about the contentious land ownership claims and the competing values and interests within the local community, it seems essential that the Project maintains an image of transparency and honesty when dealing with outside corporations. With the already low level of understanding concerning the Project and the land rights, it is especially important that the Project is open and discusses its relations with corporate interests with the community to maintain a relationship based on trust and respect with the local people.

The involvement of outside groups, particularly Cambodians, is an important challenge for Project management. How can the Project ensure that these outsiders practice sustainable use and harvesting and how can conflict be avoided? Research showed that currently Cambodians make up an important part of the lepironia economy through the buying and selling of mats and lepironia. Due to the current economic climate, the Project explained that there is decreased demand for its projects. As one woman complained, the Project is buying fewer mats from the local people at present. Building a closer relationship with the Cambodians involved in the lepironia economy could provide alternate local markets and economic partners for the Project, increasing its financial viability.

As the Project makes future decisions about land ownership and policy, it will need to weigh both the potentially negative impact of unsustainable harvesting with the potentially positive economic impact of the Cambodians on the economy of the village. Any decisions made regarding allowing outsiders to access the wetland should be made in consultation with the community.

Phu My Lepironia Conservation Project is the last extensive remnant of a unique ecological system. Thus is seems inevitable that researchers and academics will visit this area in the future. To avoid misunderstandings and problems, the Project needs to ensure that a positive relationship is built between the researchers and the people. It is ethically imperative that local people have an understanding of why researchers are talking to them so they can make informed decisions about their participation. An awareness of and strong relationship with the Project could help lead to more mutually beneficial relationships between researchers and local people.

C. Suggestions for Strengthening the Relationship between the Project and the Local Community

Although awareness about the Project and its conservation goals was very low, there was evidence of a strong understanding and knowledge about other aspects of the natural environment, notably the soil properties. Everyone interviewed had some knowledge of the acid sulphate soil, its effects on rice farming and methods of improving crop yields by controlling the acid.

The high level of knowledge and understanding about soil properties can likely be attributed to the fact that understanding the soil is a significant part of local livelihoods and is connected to the daily lives of the people. The soil affects the rice *they* grow and the land *they* cultivate and it is thus important to them. If the Project wants to raise awareness and understanding about conservation, I suggest that they try and connect conservation and sustainable management to the lives of the people, in the same way that soil properties are connected to their lives. If the people can see and understand the effects of the Conservation Project on their daily lives and if they feel as if it's something *they* can impact in some way, it might increase the participation of the local people and strengthen their relationship with the Project.

The best way to create a connection between the lives of the people and the Conservation Project is through awareness. The government official interviewed emphasized the importance of sitting down with the people and "analyzing" the rules, regulations and land rights issues and discussing how the Project works and the impact it has on their lives. It is important to do this in government meetings and events, but I think it's also essential that the Project employs non-governmental methods of communication.

One such method is through the education system. As well as visiting the schools themselves once a year, Project staff could meet with teachers and talk about including environmental education about the local area into the curriculum. The teachers could integrate this into their end of year sessions on the local community. The Project staff could also implement environmental education and awareness programs at the pagodas. Many Khmer children, including those who don't attend government schools, attend classes at the pagodas and this would be an ideal way to reach them and their families.

Although the Project in many ways tries to keep a low profile in the community, it might consider using community events, such as Khmer New Year and holidays, to discuss the Project and listen to the opinions of the local people. In this way, the Project and its staff could create a positive presence in the community and project a more accessible image to the people.

Another method that could both increase awareness and strengthen the role of women in the Project would be to involve the many women who gather every day at the Project in the form of the handicraft workers. There is ample opportunity to increase of the knowledge of these women concerning all aspects of the Project and to gain their opinions and input. Furthermore, as the Project seeks to replace management staff with local people, they could consider potentially training some of these women and have them assume certain roles and positions within the

Project. This would be an important step towards self-management and strengthening the role of women within the community.

D. Reflections on the Future Goals of the Project

In Dr. Tran's opinion, a crucial next step for the Project is to obtain the land certificate for the project area and to distribute the land among households. Each household can then sustainably harvest lepironia on pain of having the land transferred to another household if they violate the rules. In many ways, this can be seen as an efficient community-based solution because it can potentially be self-regulating and community-managed.

However, findings from this study indicate that the current role and perceptions of the local community may influence the feasibility of achieving this goal. The history of small compensation claims progressing to the more serious conflict situations today suggest a need to address land rights issues before conflict becomes even more serious.

There are currently many different conceptions concerning land rights and regulations. For example, many local people already believe that they own portions of the wetland area. The fact that they don't own a land certificate does not influence their understanding of land ownership. Instead, the history of land use and community customs have a greater influence over perceptions of land use. Any attempts to formally and legally split land between households will require a deep understanding of these perceptions in order to avoid creating tension and conflict.

In addition, local community members talked about the fact that it's easy to "steal" lepironia from another person's land. This fact seemed to decrease the value they placed on land containing lepironia. If the wetland areas are distributed among households, this needs to be considered. It is possible that land will need to be split into small enough sections so that households are able to effectively control and manage the areas.

This is an example of where the Project will need to work effectively with the local people to achieve its goals. For this kind of partnership to succeed, the issues of awareness, benefit distribution and the role of community members must be carefully considered and addressed.

V. Evaluation

The findings and analysis of this study revealed a dynamic and complex social, political, cultural, environmental and economic system where a multitude of factors and agents contribute to the role of the local community and its relationship and perceived relationship with the Project. These factors included the perceptions concerning the Project, the different values placed on natural resources, perceptions and opinions of resource ownership and rights, conflict management, political participation and relationship with the government, ethnic diversity and culture, gender issues, education and human capital, outside influences and finally perceptions and desires for the future.

Despite key differences between sub-groups of the larger community, overall the role of the local people vis-à-vis the Project was found to be limited and economically-focused. Common threads running through all of the factors affecting this role were awareness and the distribution of benefits. The image the Project projects to the community and the methods by which it communicates with the local people did not seem to be effective for increasing awareness and participation. As a result, the Project has failed to stimulate a sense of ownership and involvement of the local community beyond a purely economic and financial level.

This limited role has important repercussions on the feasibility of the Project reaching its more community-based goals, specifically community-based management. Furthermore, some of the future plans concerning land rights and regulations are unlikely to be successful unless they take into account the current perceptions and values of the local people. This will involve creating a dialogue with the community through more suitable methods of communication and building a partnership with the local people where not only the financial benefits, but also the overall rights and responsibilities of the Project are shared.

The findings of this study are especially significant considering the relative overall success of the Project in terms of meeting its goals as an ICDP. It is a project that is founded to conserve an important ecosystem while simultaneously improving the life of the local people through local development. Its success is demonstrated by the numerous international awards it has won and the relatively little conflict in the area when compared to other conservation projects, such as the nearby Tram Chim National Park. The critical and analytical method by which this study has examined the role of the local people does in no way detract from the fact

that, in my opinion and the opinion of many people I have spoken to, the Phu My Lepironia Conservation Project is the kind of conservation project that should be emulated across Vietnam.

What this study does show is that the issues surrounding community involvement are extremely complex and depend on many interrelated factors. The finer details of Project management and how it chooses to interact with the community can go towards building a relationship that is successful on more than just a financial scale.

The results and conclusions from this study can contribute to the growing body of literature on conservation management by increasing the understanding of the factors affecting as well as the impact of the role of the local community. These issues need to be considered in evaluating the success of any conservation project and the lessons learned from this study could hopefully go towards planning more effective and sustainable conservation projects in the future.

VI. Recommendations for Future Study

If unlimited time and funding were available, it would be possible to expand this study by conducting interviews with a higher number and wider range of local people. Due to the wide array of differences in backgrounds, experiences, socioeconomic levels, occupations, ethnicities, and education amongst the population, there are likely to be many perceptions, values and opinions that were not represented in my findings and in this study. Their inclusion would lead to fuller and more accurate conclusions about the local community's role and perceptions of the Project.

After conducting this research, I believe it would be of use to conduct a study of the values, opinions and motivations of outsiders, such as the people who come from Cambodia, regarding the wetland. An understanding of how they perceive and value the wetland would allow the Project and other researchers to more fully understand the demands placed on the land and the challenges that face achieving effective sustainable-use conservation in Phu My.

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Appendix. Interview Questions Used to Guide Interviews

- 1) Are you Kinh or Khmer?
- 2) Are you in any unions?
- 3) Have you even been to any kind of community or government meeting?
- 4) Are you involved in the Conservation Project? If so, in what way?
- 5) Is making mats a Khmer or Kinh tradition?
- 6) Is life in the village harder for women or for men?
- 7) What do you know about the Conservation Project?
- 8) How much land do you own? What do you grow on this land?
- 9) How would you define your role in the Project and what are your responsibilities?
- 10) What are the goals of the conservation Project?
- 11) Who is benefitting from the Project? Who is not benefitting? Why do you think this is?
- 12) Have there been any conflicts since the Project began? How are conflicts resolved?
- 13) Who is in charge of the Project?
- 14) Do you think a local person should/could be in charge of the Project?
- 15) Who does the wetland belong to?
- 16) Does anyone guard the wetland area?
- 17) What do you think are the strengths and weaknesses of the Project?
- 18) Have you heard of anyone not cooperating with the rules of the Project? If so, why do you think this is?
- 19) What do you think the future of the Project is? What should be changed?
- 20) Have you ever seen the cranes? Of so, do you know why they come to Phu My?
- 21) Have you heard of any stories about the cranes?