

**In the Cockpit: The Political Ecology of Integrated Conservation and
Development in Cockpit Country, Jamaica**

By

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Abstract

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In response to the top-down nature of many environmental protection efforts and the technical approaches that prove detrimental to the livelihoods of people located in and around conservation areas in the Caribbean, community based participatory resource management and sustainable livelihood programs have become commonplace in the environmental protection discourse. However, they often negatively affect the people at the bottom of these programs by promising livelihood improvements that rarely come to fruition due to the tensions between conservation and development. In this dissertation, I present an ethnographic account of attempts at integrated conservation and development in the bauxite rich Cockpit Country of central Jamaica. This research concerns the environmental practices and values, and collaboration of people “participating” in Local Forestry Management Committees (LFMC) that were established to provide economic alternatives to bauxite mining in Cockpit Country.

I conducted research for this dissertation in various phases from 2008 to 2010, culminating in five months of fieldwork in 2010. Working with The Nature Conservancy, USAID, The Forestry Department of the Ministry of Agriculture, The Windsor Research Centre, Cockpit Country residents participating in LFMCs, and Cockpit Country residents who did not participate in these programs, I examined the alternatives to the agricultural practices currently

employed in Cockpit Country communities and the bauxite mining proposed by the Aluminum Company of America (ALCOA) in the area. Using archival data, interviews, surveys and participant observation, I examined the problems and potentials of the LFMCs and their affiliated programs. My analysis concerns the relationships among the people at the top and bottom of these programs, their varying conceptions of nature, and their collaboration in the development of livelihood practices intended to promote an equitable and participatory process of integrated conservation and development.

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Glossary

ALCOA	Aluminum Company of America
CANARI	Caribbean Natural Resources Institute
CAP	Conservation Action Plan
CCLFMC	Cockpit Country Local Forestry Management Committee
CCSG	Cockpit Country Stakeholders Group
EFJ	Environmental Fund of Jamaica
EPL	Exclusive Prospecting License
FAO	Food and Agricultural Organization
FCF	Forest Conservation Fund
FDJ	Forestry Department of the Ministry of Agriculture of Jamaica
GoJ	Government of Jamaica
ICDP	Integrated Conservation and Development
JAMALCO	Jamaican Aluminum Company
JET	Jamaica Environment Trust
JLP	Jamaica Labour Party
LFMC	Local Forestry Management Committee
LLC	Limited Liability Company
NFMP	National Forestry Management Plan
NLFMC	North Local Forestry Management Committee
NTFP	Non Timber Forest Products
PARE	Protected Areas and Rural Enterprises
PiP	Parks in Peril
PNP	People's National Party
PRO	Public Relations Officer
SBAJ	Small Business Association of Jamaica

SD	Sustainable Development
SELMC	South East Local Forestry Management Committee
SEPL	Special Exclusive Prospecting License
STEA	Southern Trelawny Environmental Agency
SWLMC	South West Local Forestry Management Committee
TNC	The Nature Conservancy
TPDCO	Tourism Board Product Development Company
USAID	United States Agency for International Development
WiD	Women in Development
WRC	Windsor Research Centre
WWF	World Wildlife Fund

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Chapter 1: Introduction

Within the last decade, the Cockpit Country of west central Jamaica (fig. 1) came into the international conservation discourse. As a place of extremely high floral and faunal endemism, it increasingly began to draw the interest of researchers and conservationists intent on exploring and protecting the vast resources of the area. In fact, Cockpit Country is part of an area, which includes Florida and the Caribbean, that has been described as the world's third most important biodiversity "hotspot" (TNC, 2007). Prior to the establishment of Cockpit Country-based research institutions and environmental organizations in the 1990's, the area received very little attention outside of the interests of natural and social scientists seeking to explore the biodiversity and culture of the area. Social science work to date has predominantly focused on the establishment, development, and perseverance of Maroon societies in the area (Dallas, 2002). The natural sciences have grounded their work in the more unique biological aspects of the place; for example, there are several species of birds and snakes endemic to Cockpit Country. Physical geographers have also done extensive research concerning the area's unique karst topography, which is purported to be second-to-none in the world (cf. Lyew-Ayee, 2007; Mingon, 2010). Concerning development, outside of the occasional exploration of minerals such as bauxite, there have not been any significant inflows of capital into the area since the 1980s when several communities in Cockpit Country were actively producing bananas for export, as well as a number of other cash crops (Weis, 2006). In light of the lack of development in Cockpit Country, no in-depth research concerning the nexus of nature and society has focused on the area.

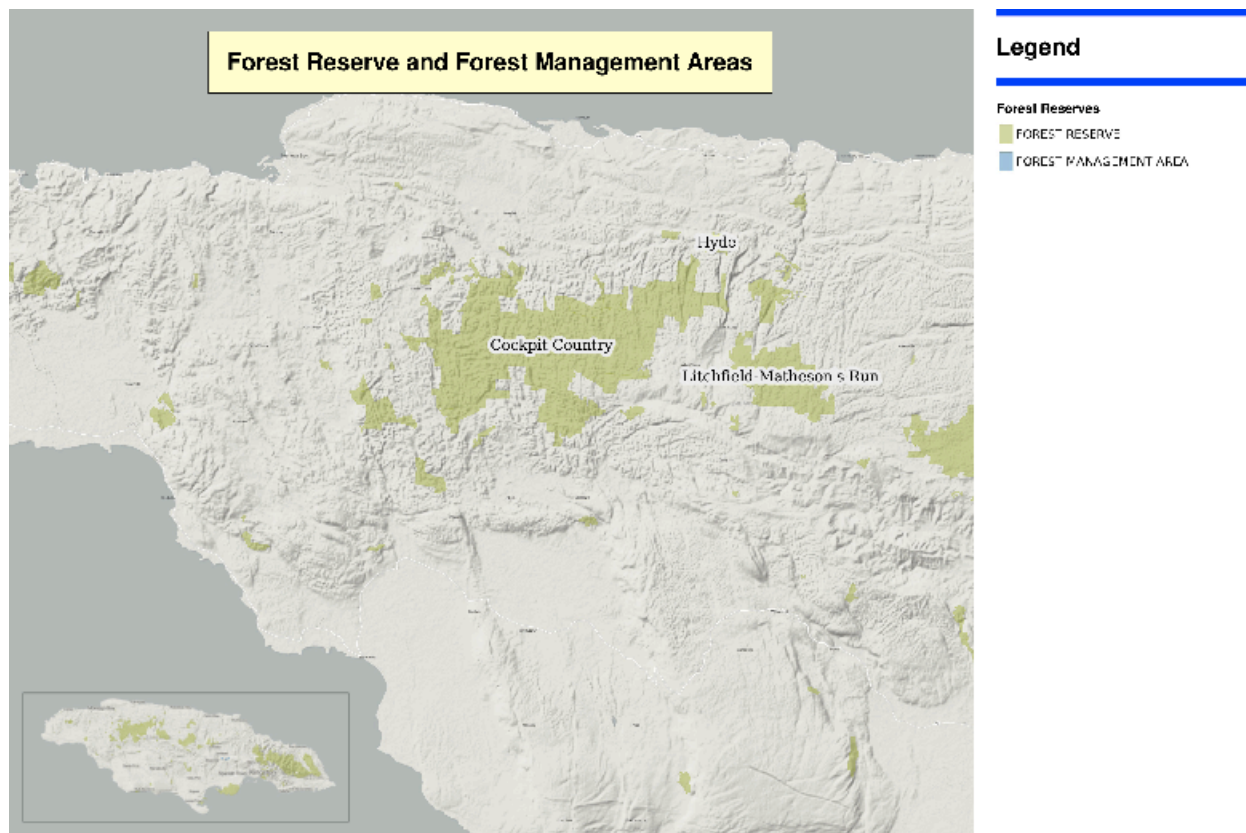


Figure 1: Forest reserve and forest management areas of Jamaica.

The Research Context

In response to centuries of deforestation, the 1996 Forestry Act of Jamaica was updated to include the language of sustainable development touted in the influential Agenda 21, stemming from the 1991 Rio Earth Summit. This was a direct result of the nation's dwindling economy, where the government not only had little available expenditure to dedicate to environmental protection (Lundy, 1999), but could hardly maintain its own political structures (Polanyi-Levitt, 1991). As a result, the Forestry Department of the Ministry of Agriculture (FDJ) harnessed this developing discourse of sustainability and participation, appropriating the language according to their political loyalties and ambitions concerning the conservation and

development of forest resources. This situation, as proposed in the 1996 Forestry Act, led to the inclusion of the Jamaican populace in the conservation discourse, leading to the establishment of Local Forestry Management Committees (LFMCs).

This dissertation seeks to address the problems and potentials of people's participation in LFMCs. Through the lens of political ecology, my work analyzes the social relations among people participating in LFMCs and their discursive cum material articulations of nature. Further, I argue that, in the context of integrated conservation and development, it is critical to analyze people's affective and experiential affiliation with nature. The theoretical tenets of political ecology provide a means for analyzing the production of power and articulations of nature with respect to race, class and gender. However, pairing the conceptual approach of political ecology with an environmental psychology lens concerning how people think and feel about nature, as well as their shifting understanding of nature as produced and reproduced in the context of integrated conservation and development, provides a means for extending the conceptual approach of political ecology to develop a more holistic understanding of the current case study.

Cockpit Country Local Forestry Management Committees

The Cockpit Country Local Forestry Management Committees (LFMC) were forged out of growing tensions between the Ministry of Energy and Mining, the Jamaica Bauxite Institute, the Forestry Department of the Ministry of Agriculture, various environmental organizations, and Cockpit Country based communities. A Special Exclusive Prospecting License (SEPL 535) and an Exclusive Prospecting Licenses (EPL 536) were granted by the Ministry of Energy and Mining for various areas of Cockpit in the parish of Trelawny beginning in 2004 (fig. 2), which

ideas for establishing a series of LFMCs throughout Cockpit Country. Their primary purpose was to establish groups that would assist in forest conservation. A similar initiative had been attempted by the World Bank in 1999, but was cancelled due to community and government resistance to their proposal, which effectively would have limited all community activity in the forest, alongside banning bauxite mining (World Bank, 1999). Throughout 2007, the CCSG hosted meetings concerning the potential impact of bauxite mining and the development of LFMCs in various areas of Cockpit Country including Wait-A-Bit, Trelawny; Bunkers Hill, Trelawny; and Flagstaff, St. James, as well as in more high profile areas including resort hotels in Montego Bay and Kingston. While the communities greeted these organizations with caution at first, placing emphasis on the possible benefits for the community members, they were eventually drawn into the USAID, TNC and FDJ touted participatory process, where the notion of a “democratic” and “participatory” process concerning the development of conservation and alternative livelihood programs was eventually embraced. The proposed collaboration was rooted in the common belief that bauxite mining would be detrimental to the people and land of Cockpit Country. Some of the additional risks identified included unsustainable farming practices, endangered species collection, and improper sanitation (TNC, 2007). However, as will be elucidated in the data, a community-based consensus concerning the overall risks to Cockpit Country was never reached.

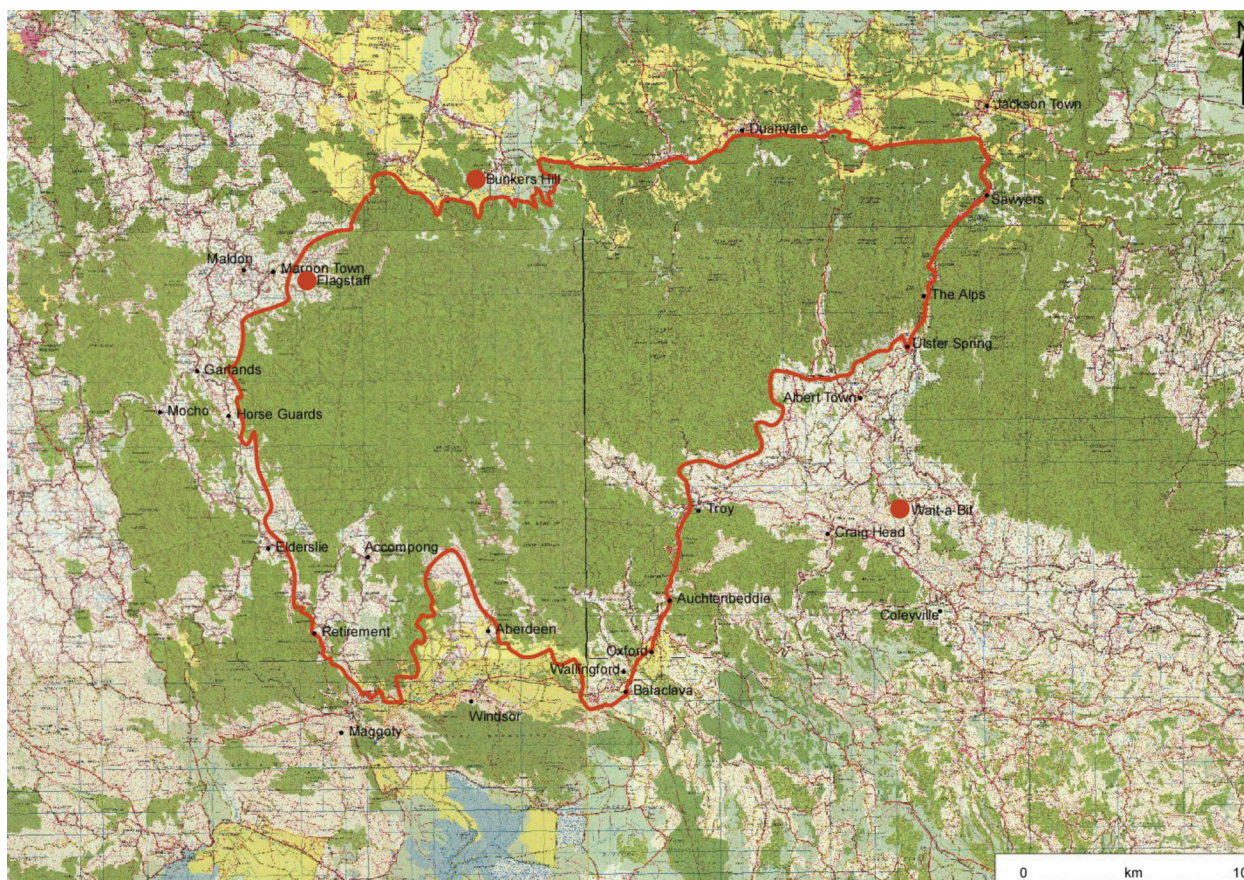


Figure 3: Local Forestry Management Committee locations in Cockpit Country (Modified from Mitchell et al., 2008).

In 2008, LFMCs were officially launched in the three aforementioned areas in and around the Cockpit Country buffer zone (fig. 3), which was considered to be an advantage in that they would effectively reach out to the surrounding communities and form a sort of social buffer zone in lieu of the government's lack of initiative in establishing a geographical boundary. With continued funding garnered from USAID's Protected Areas and Rural Enterprises (PARE) project, the newly established LFMCs received training in the areas of small business development, ecotourism, food preparation, and cultural sensitivity. Funding from this program

was also allocated to the development of the LFMC's first ecotourism project. The ecotourism project development included the rehabilitation of Maroon historical sites and a series of trails that had become overgrown due to infrequent use in Flagstaff, St. James. A major portion of this funding—12 million Jamaican Dollars (~ US\$123,000)—was allocated to the development of an eco-tourism visitor center in Flagstaff. As the PARE funding began to dry up in the Fall of 2009, TNC and USAID ceased direct involvement in the project and handed all responsibility over to the FDJ and the community members that had helped to establish the CCLFMC project.

Since all projects that began with the LFMCs, FDJ, TNC, and USAID are now entirely left to the efforts of the LFMC members with the assistance of the FDJ, it was hoped that the training provided would serve as the basis for the LFMC members to begin to garner their own funding sources and continue to forge ahead in the completion of their initial conservation and alternative livelihood projects; namely eco-tourism and agroforestry. The focus of my dissertation research is the processes and products of three years of direct work in Cockpit Country under the collaboration of the LFMCs with USAID, TNC, FDJ, and other NGOs and research organizations. I hope that this work will serve as a barometer for assessing the problems and potentials of integrated conservation and development programs (ICDP) in Jamaica and the Caribbean more broadly.

Problem Statement

In response to the “top-down” nature of many environmental protection efforts and the technical approaches that prove detrimental to the livelihoods of people located in and around conservation areas in the Caribbean, community based “participatory” resource management and

“sustainable livelihood” programs have become commonplace in environmental protection discourse and practice (Adger, N.W, Brown, K., and Tompkins, E.L., 2006; Geoghegan and Renard, 2002). However, to date, there have not been any in-depth studies of ICDPs in Jamaica.

Jamaica presents a unique model of social, political, economic, and geographical insertion in global systems (Robotham, 1998). In this context, I argue that Cockpit Country, and Jamaica more broadly, presents a particularly visible space for critiquing global systems focused on small geographical areas. Further, the Cockpit Country project is a unique case given its contrasts with similar participatory management programs employed throughout Latin America and the Caribbean, in that Jamaicans in lower socioeconomic groups rarely mobilize to confront social and environmental inequities (Lundy, 1999). Jamaica also presents a particular articulation between race, class and gender in the unfolding of such projects. Thomas (2004) found, for example, that the ‘poorer sets’ in Jamaica show little trust toward their own class group in the context of NGOs and program development. When funding for social and environmental programs is available, poor Jamaicans seem to prefer to have members of the brown middle class organize the programs and take responsibility for funding allocation. This decision is based on their basic needs; that is, they believe people in the brown middle to be better prepared to sustain their everyday lives and more trustworthy with funding. Further, Thomas found that the poorer sets believed education, a privilege of the middle class, is necessary to communicate and work effectively with NGOs. Considering the aspect of mobilization and the articulation of race, class and gender in Jamaica, I argue that it is critical to extend an understanding of the current case study in the context of people’s affective and

experiential relationship with nature as a means of assessing people's motivation for participating in LFMCs.

The variables of race, class, and gender, and how they factor in to political engagement (Stone, 1980), identity and globalization (Thomas, 2004) and environmental movements (Lundy, 1999) have been explored in Jamaica. Rich studies such as these provide a wealth of knowledge, which, taken in a broader ethnographic context, help to provide inroads to analyzing ICDPs. Understanding the social relations of people's participation in these types of organizations would be greatly informed through an analysis of how people engage with and value nature. In the last decade conservationists, economists, ecologists and biologists, to name a few, have been increasingly challenged with finding ways to define the value of the natural systems that they are eager to conserve and study (Dumitras, Arion and Merce, 2011). For many nations, economic valuation of nature is necessitated by broader economic circumstances, whereby allocation of government revenues must be applied to areas that are directly profit driven. This presents another complex set of issues concerning the nuanced ways in which people "value" nature, e.g. intrinsically and instrumentally. However, such values may be influenced by the people's experiences of power as situated in ICDPs. Therefore, I will analyze the specific articulations of power as expressed through the intersection of race, class, and gender. Further, I will situate this within an analysis of people's affective and experiential relationship with nature.

Purpose

This project concerns the political ecology of ICDPs in Cockpit Country that have been developed as alternatives to bauxite mining through collaborations of NGOs, CBOs, the Forestry Department of the Ministry of Agriculture, and community residents in a participatory

framework. In the course of my fieldwork, I documented group and individual activities and behavior to develop an understanding of the relationships among these groups of varying race, class, gender, and interests; their varying conceptions of nature; and the possibilities for their collaboration in the development of livelihood practices promoting a more social and equitable process of sustainable development (Benton, 1996).

This thesis analyzes the inroads to these environmental protection cum development programs in Cockpit Country, the processes by which international NGOs and donor organizations negotiate their strategies and practices on the ground, the role of local government and state agencies, people's engagement with and valuation of nature, how and to what extent the "participants" that took part in the LFMCs worked together to initiate environmental protection and alternative livelihoods in Cockpit Country, and finally what the LFMCs have achieved since the international organizations ceased involvement. Grounded in ethnographic and historical analysis of forest legislation and use, this research also examines race, class, and gender in the context of ICDPs. The principal groups working with the NGOs are local farmers and Maroons. Considering this, my research examines how community member participation in LFMCs may or may not challenge Lundy's notion of middle class domination of the environmental movement in Jamaica and Thomas's notion of class and NGO interaction.

Research Questions

- (1) How are the Local Forestry Management Committees (LFMC) formed, experienced, and understood by the full range of users of the land in Cockpit Country?

- (2) How do the people who work in the Cockpit Country LFMCs translate their experiences in recently established ICDPs into their understandings of the relationship between race, class, gender and education as implicated in their work in the LFMCs?
- (3) How do the people who work in the Cockpit Country LFMCs engage nature in their everyday lives, and how do these activities affect their valuations of nature and motives for protecting Cockpit Country?
- (4) How have the Cockpit Country LFMC programs affected the livelihoods of their participants? To what extent have they fulfilled their broader conservation and development objectives?
- (5) How has Jamaican forest and mining policy, and the world economy affected the implementation and effectiveness of the Cockpit Country LFMCs?

Word, Power, Sound

In the early phases of my fieldwork, I quickly came to know many of the people in the villages where I conducted research, and, as such, the people quickly came to know my purpose there. I was quite clear that I wanted to learn about the environmental practices of the people living in Cockpit Country and the work of Local Forestry Management Committees working with The Nature Conservancy, USAID, The Forestry Department of the Ministry of Agriculture of Jamaica, as well as a host of NGOs and related institutions. In this process, I was also clear about my intention to publish on what I saw there and disseminate my findings widely across various outlets. After speaking with LFMC and broader community members, I agreed to assist

in any way that I could, be it chopping trails or helping to write emails to government officials. For many people, my presence provided a space and place of expression. On several occasions, people would come to me and say, “I want an interview!” While an explanation of my place within these communities will be provided in chapter 2, I would like to begin with an early interaction with a community member that has come to guide my thinking in this thesis.

Word, Power, Sound - An Ethnographic lens

It was a cool summer evening. I had finished my fieldwork in Flagstaff for the day and was typing up my notes while sitting on the veranda of my host’s home. An elderly gentleman who identified with Rastafarian and Maroon cultures, QT, came walking around the road just in front of the house, peering over the banister to meet my gaze, saying, “can cum talk to ya?” As I heard the gentleman calling, I stood and said, “yeah man, unu cum up!” Having invited QT to join me on the veranda, I offered my guest a chair and a drink of water, which he accepted graciously. We had spoken before, mostly in passing, but when I saw him I knew he had sought me out for some specific purpose. He was dressed differently than usual, with slacks and a button down shirt, and, per usual, an old baseball cap with his long locks spreading out from beneath the rim.

After some idle conversation, QT took a long, hard look at me and said, “me know unu cum here a seek a truth and knowledge.” While I would have been hard pressed to disagree with this statement, I sat silent, wondering where the conversation would lead. QT pointed to the ground and drew a circle. He redirected his gaze to me and asked, “a wha dat?” I responded, “a circle!” He looked at me and gave a firm nod of affirmation, followed by repeating the drawing

action. He asked again, “a wha dat?” To which I responded, “another circle?” QT sat back quickly and looked upon me hard, shaking his head from side to side. I quickly corrected myself and said, “it’s an O!” This time, he grinned and nodded in affirmation. He then drew a new shape and looked at me—I said, “it’s the letter E;” he nodded. With more speed in his motion, he indicated that he was turning the E on the ground, and I said, “it’s an M!” Excited now, he made one more turn, and looked at me, to which I responded, “it’s a W.” He smiled, leaned toward me and said, “word, power, sound!” In this moment, I had realized that in the tradition of the Rastafarian practice of teaching through metaphor, that there was a much more important message that he was trying to deliver. I considered the action, and thinking in terms of geometry, looked at QT, and said, “so there’s more than one side to every story.” QT leaned back and smiled in affirmation. He said, “me wan fi talk ‘bout the LFMC. Who is the president?” I named the person in office at the time. He followed with, “who is the vice-president?” To this, I did not have an answer. He went on to ask about the treasurer, secretary, etc., but I could not produce an answer. In fact, I had always wondered who they were. I had met the people that occupied these positions in the other two locations, but the respective posts in Flagstaff remained a mystery. From my clear lack of knowledge of the executive structure of the LFMC, QT indicated that I would need to learn about these things and uncover why they came to be that way. From this, I took a broader message; perhaps that, yes, there may be more than one side to every story, but more so, shifting to a more geographical mode of thought, I began to realize that things may not always be what they seem. As QT’s example of rotating letters and symbols yields very different meanings, this dissertation attempts to consider the nuanced environmental views and practices of all people participating in the LFMCs.

This initial interaction became the cornerstone for honing a lens through which I would view this project. I was given a tool box for understanding the collaboration of the various actors involved in this project, and unpacking the various motives and loyalties that come with such collaborations. I could see that the people that I worked with viewed both project insiders and outsiders with suspicion, a suspicion that was born out of the blatant individualism commonly associated with Jamaica. Simultaneously, I was educated, cared for, directed, and, at times, chastised. I came to groups of people that eventually embraced my presence, and it is to them that I dedicate these chapters, this lens that they provided for me.

Literature Review

The Geography and Biodiversity of Cockpit Country

The unusual physical geography of Cockpit Country is important ecologically, socially, and historically. The numerous species of plants and animals endemic to the area are dependent on its unique karst limestone topography and climate. Its topography is characterized by steep-sided hills and deep round valleys, which were named for their resemblance to cock fighting rings (Day, 2004). Millennia of water runoff have shaped the conical hills and sinkholes that are a pervasive part of the area's geography. These landscapes display distinctive surface features and underground drainage, and in some areas there may be little or no surface drainage. The karst topography in Cockpit Country is underlain by 300 of Jamaica's 500 or more caves. Due to poorly developed infrastructure, the groundwater in these areas can be polluted just as easily as surface streams, while sinkholes have often been used as farmstead or community trash dumps as

these are the only spaces accessible in the area. Overloaded or malfunctioning septic systems in karst landscapes may dump raw sewage directly into underground channels (Dixon, 2006).

The humidity in much of Cockpit Country is commonly quite high and several species need this humidity to survive. The cockpits' structure often block any wind from blowing between them, thus maintaining high levels of humidity. Mining companies forging roads through this area could easily disturb this topography, affecting humidity levels, and ultimately several species of plants and animals that are dependent on it for their survival. Cockpit Country is not only one of the most biodiverse areas in the Caribbean, it also serves as the main water supply for much of Western Jamaica. Five parishes derive their water supply in whole or part from this forested area (Tole, 2006). The area's vast karst topography also played an important role in colonial Jamaica when many of its hundreds of caves were used as sanctuaries for escaped slaves (Martin, 1972).

This 'island within an island' is extremely rich in biodiversity with several species being endemic to Jamaica and Cockpit Country itself. In fact, there are even species that are endemic to one hill within the Cockpit Country. Several species of bats, including the Jamaican flower bat (*Phyllonycteris aphylla*), the hairy-tailed bat (*Lasiurus degelida*), and the Jamaican fig-eating bat (*Ariteus flavescens*) make their homes in this land. Of the country's 100 bird species, 79 are found only in Cockpit Country. Several birds, including the black-billed parrot (*Amazona agilis*), the yellow-billed parrot (*Amazona collaria*) and the ring-tailed pigeon (*Pataqioenas caribaea*) are at risk. There are two at-risk snake species, the Jamaica yellow boa (*Epicrates subflavus*), and the black racer (*Alsophis ater*), both found in Cockpit Country. Endemic butterflies include the blue swallowtail (*Protographium marcellinus*) and the giant swallowtail

(*Plerourus homerus*). The giant swallowtail is the largest butterfly in the Americas and the second largest in the world. In addition to this large array of fauna, Cockpit Country is also home to many of the island's floral species including ferns and orchids (Tole, 2006).

Cockpit Country - An Area of Social and Historical Significance

Cockpit Country is comprised of 66 communities with approximately 73,000 people over a 279² kilometer area. The people who live there have carved out these communities with their own hands and rarely receive any government assistance. In fact, this is an area with very little outside political involvement. Cockpit Country residents include small scale farmers, Maroons, and individuals who practice a variety of trades throughout the more remote parts of the country. Maroons have been recognized by the United Nations as a group indigenous to Jamaica (Agorsah, 1994). In Jamaica, the development, growth, and survival of Maroon societies provides a cultural link between African diasporic societies and both the Spanish and British settlers (Martin, 1972). Their presence attests to the struggles and survival of African diasporas in Jamaica and the Caribbean.

During colonial rule, communities of Maroons, or escaped slaves, began to emerge throughout much of the new world. The hardships and atrocities inflicted on these dislocated groups spurred revolts in plantation based economies throughout the Caribbean. The Maroons formed communities in remote regions of these already foreign lands where they could build their numbers and resist colonial rule (Kopytoff, 1978). Maroons are not only the descendants of African slaves, but distinct peoples who have traditionally occupied and used specific territories, such as Cockpit Country, and govern themselves wholly or partially through their own laws and

norms. The passing of cultural practices such as music, religion, agriculture, and medicine, to name a few, may be observed in the current context (Sanders, 1999). However, it should be noted that these practices have been hybridized in an ongoing evolution grounded in the development of the political economy. This has been marked by ongoing changes in production practices in Jamaican Maroon communities, e.g. sugar production beginning in the 1950's (Barker & Spence, 1998) and cultural tourism beginning in the 1970's. Given that Maroons descended from escaped slaves, their indigeneity does come into question. Considering the precarious nature of defining indigenous people, this dissertation will refer to Maroon societies as groups descended from escaped African slaves in the New World.

The first Jamaican Maroons were slaves who had escaped from the Spanish haciendas or were freed when Spanish control was ceded to Britain after 1655. They were eventually joined by slaves who escaped the British plantations or were ultimately freed (Barker & Spence, 1998). The rough and unmapped territory of Cockpit Country provided an ideal space for the Maroons to develop their communities apart from the European settlers, whose predominant interest was in occupying the arable land that supported the Spanish hacienda system and later the British large scale plantation system. The conditions of Cockpit Country were far from ideal for supporting these colonial systems of agricultural production.

The Maroons soon came to develop an intimate knowledge of this area and were able to use this knowledge to their advantage in conflicts with the British colonists. They harassed the colonists using guerilla tactics (Martin, 1972). They raided settlements, encouraged flight and rebellion among the slave population, and became a serious threat to British control of the island. The British were unable to defeat the Maroons -- leading to an agreement of terms recognizing

Maroon freedom and partial independence in exchange for their loyalty and support (Kopytoff, 1979). In the treaty of 1739, the British formally freed the Maroons from slavery and ceded 1500 acres of land in Cockpit Country to the Maroon community of Accompong, as opposed to individual Maroons, in return for their pledge of loyalty to the crown and a promise not to harbor escaped slaves (Basso, 1960 from Martin, 1972). To this day many Maroons argue that the original treaty noted 15000 acres to be transferred, though maintaining a legal right to the 1500 acres that were recognized by the treaty has proved to be a struggle. Based on communal ownership of the land around Accompong, the Maroons have maintained their independence, separateness, and distinctive cultural patterns ever since (Martin, 1972).

What developed between Maroons and government was a patron-client relationship with flexible parameters for there was no clear precedent or model for either side to follow. The government was rather free in devising new regulations which it then persuaded, rather than compelled, the Maroons to follow, for it had no authority to enforce them. The Maroons, for their part, seemed less concerned with the letter of the treaties as with their new position in the island and the advantages it conferred (Kopytoff, 1979).

Maroon societies have endured to current times. While a complete historical analysis of the Maroons of Cockpit Country is out of the scope of this work, recognizing their significance to this area, and the significance of Cockpit Country to the Maroons and Jamaica more broadly is of key importance as two of the three LFMC locations are in communities with several members who claim to be descended from Maroons. Further, the Maroons have been woven into the LFMC projects as cultural artifacts of Cockpit Country; that is, their history and culture have been marketed as part of the ecotourism projects that were developed from 2007 to 2009. This strategy builds on the commodification of Maroon culture by Maroons, which has

been commonplace since the 1970's, e.g. the annual January 6th celebration in Accompong. This date was selected to celebrate the peace treaty of 1739 by the Maroons of Accompong, as it is the birthday of Cudjoe, a fierce Maroon historical figure. Also, my emphasis on Maroons does not mean that Cockpit Country does not have inhabitants descended from other African diasporas. My study includes people from various diasporas -- Maroon society, however, has a long social and historical significance in this area that symbolizes freedom and sovereignty through active resistance, and has powerful implications for the people of Jamaica.

The Bauxite Context

While I have considered the social and historical significance of Cockpit Country, considering that the LFMCs were formed, at least in part, to develop economic alternatives to bauxite mining, it is also critical to review the literature concerning the broader bauxite context. Bauxite, soil high in aluminum ore, was discovered in Jamaica by geologists around 1869. This came before the technology had been developed for simplifying the process of extracting pure aluminum from aluminum ore. In 1947 the Mining Law and Minerals (Vesting) Act were entered into law, in terms of which mining regulations were published, detailing the conditions under which prospecting might take place and leases may be held. It is vital to note some key points of the Mining Law and Minerals (Vesting) Act to lay the groundwork for a discussion of the social, environmental, and economic implications of bauxite mining.

Section 17 of the Mining Law and section 3 of the Minerals (Vesting) Act explicitly state that all minerals, including bauxite, are 'vested in and are subject to the control of the crown.' Regardless of landownership, location, or land use the Jamaican government maintains

sovereignty over these resources and the right to grant prospecting license to any organization that has sufficient capital to maintain a viable prospecting operation. Potential prospectors are required to submit a prospecting application and a fee as designated by the commissioner of mines for a single mineral, at which point the commissioner may accept or reject the application. If granted, a prospecting license opens all lands included in the application, including privately owned land, to the prospector with some caveats. The prospector may not prospect for a period of more than one year without renewal, which may be done on an annual basis. The prospector is also responsible for reimbursing private landowners for any damages that occur to the property during mineral prospecting. If minerals are found, the company may apply to the commissioner of mines for a lease of up to 25 years.

The Jamaican Bauxite export industry, initially fueled by the Reynolds Metals Company of Richmond, Virginia, did not take shape until 1952. The Kaiser Bauxite Company, registered in Nevada, also began to make inroads into bauxite ventures in Jamaica at this time. In 1953 ALCAN Jamaica Limited, a subsidiary of Aluminum Limited of Canada Incorporated and Jamaica Bauxite Limited, began production of alumina and the exportation of its product to aluminum smelters in Norway (Young, 1965). These and other companies have since either left Jamaica or, in the case of Kaiser, were acquired by the Jamaican government. The Aluminum Company of America's (ALCOA) roots in Jamaica go back to 1959 with the formation of ALCOA Minerals of Jamaica, a wholly owned subsidiary of ALCOA. The operation began with bauxite mining, with the first shipment of bauxite occurring in 1963.

As the majority of these companies were subsidiaries of North American aluminum companies, the Jamaican government began investing in these companies and purchased the

majority of the mining areas from the foreign companies in exchange for long-term mining leases in the early 1970's. In 1974, the government introduced a production levy, which listed the price of bauxite in accordance with the rates that bauxite companies were selling aluminum ore. Since then, Jamaica has made several adjustments to the Levy to accommodate global fiscal trends. In 2002, ALCOA formed an agreement with the Jamaican government to invest \$115 million into the expansion of JAMALCO's operations in exchange for removal of the levy on JAMALCO (ALCOA, 2002). The Jamaican Aluminum Company (JAMALCO) is co-owned by the Jamaican Government and ALCOA.

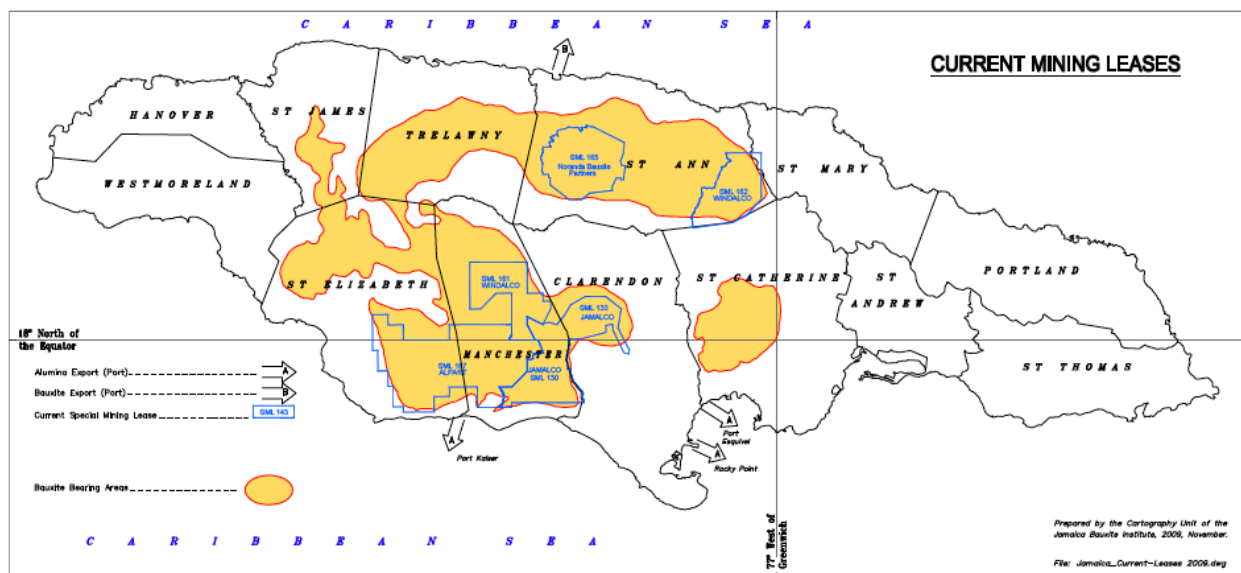


Figure 4: Bauxite mining areas (Jamaica Bauxite Institute).

ALCOA is the world's second leading producer of primary aluminum, fabricated aluminum and alumina behind United Company Rusal, who purchased 65% of ALCAN in 2007 followed by a complete takeover in 2012. While ALCOA's mining operations predominantly take place in the Breadnut Valley mines on the Mocho Mountains (see figure 4), the mining companies are attempting to expand into other parts of the country that have yet untapped

resources. Following ALCOA's 2002 investment, the levy on JAMALCOs bauxite mining operations was removed in 2003 allowing the company to lower their costs and expand production (Johansson, 2003). As part of the expansion, JAMALCO began prospecting for bauxite in Cockpit Country in 2004 (MMM, 2004). A Special Exclusive Prospecting License (SEPL 535) and an Exclusive Prospecting License (EPL 536) for areas throughout the northern region of Cockpit Country were granted to ALCOA, which were renewed annually up to 2008. With the downturn in the global economy, the bauxite industry in Jamaica nearly collapsed in 2009. However, ALCOA began to increase production in September of 2009, and the industry is expected to rebound with the recent influx of investment from China.

Bauxite Mining - Social, Economic and Environmental Implications

Bauxite mining companies bring with them the prospect of jobs and economic improvement. Bauxite/Aluminum export is the second largest industry in Jamaica and is considered to be vital to the Jamaican economy (Day, 2004). Bauxite is a non-renewable commodity and bauxite mining is an unsustainable practice that displaces communities and causes significant environmental damage (Young, 1965; Lundy, 1999). The bauxite rich lands of the Cockpit Country are inhabited by small-scale farmers and local residents, many of whom are part of the Maroon community.

Berkaak (1983) argued that bauxite company policies of re-settlement changed through two distinct historical phases. He referred to the 1960's as 'back in the raw-deal phases,' where bauxite companies negotiated resettlement terms on a case-by-case basis, resulting in inconsistent compensation deals. They typically offered a one-time payment for use of the land

or offered to resettle the residents in another area. According to Berkaak, this created ‘a lot of problems and conflict’ as the government did not sanction any form of federal protection concerning the negotiations between local land holders and the mining companies. Later, the Bauxite companies were urged by the Jamaican government to develop a legitimate resettlement plan. In this new deal, the company would purchase arable land on the plains and compensate the residents on a one to one value basis according to standard official rates.

While there is very limited research that reflects the voice of Jamaican people who have been displaced by bauxite mining. Berkaak’s study attempted to reflect the people’s voice in a limited fashion. Berkaak interviewed a series of farmers who were resettled from the Mocho Mountain mining site by ALCOA. He found that there was ‘widespread opposition’ to the methods of compensation used by the Jamaica Bauxite Institute and the bauxite mining companies. There were several farmers who refused to sell their land, but were ultimately forced to resettle based on Jamaican mining laws, which grant bauxite companies the right to remove residents against their will. Berkaak claimed that nearly all of the farmers he interviewed expressed dissatisfaction with the deals they signed. In effect, Berkaak’s findings make a case to consider resettlement as a disruption to the rural social relations on which many Jamaicans base their survival. There is a cultural paradigm in Jamaican agricultural society, whereby people rely on their neighbors for assistance in agricultural production. For example, if a farmer is short of yams when going to market they would ask a neighboring farmer to lend them the produce. Further, many people seek refuge in Cockpit Country in hard times--it is a place where people can return to seek out a living in the agricultural context. However, those returning to places like Cockpit Country often do not have the material resources and knowledge required to begin the

shift to agriculture. In the Jamaican context, well-established farmers will happily donate a few head of yam and share their agricultural knowledge with those seeking inroads into the process. The disruption of this critical relationship demonstrates the multi-layered implications of company resettlement policies. Land purchase and compensation policies have similar implications in that the resident must ultimately resettle elsewhere and sacrifice the support structures they have come to depend on.

Conserving Protected Areas

In response to extractive industries, such as bauxite mining, and broader environmental issues, conservation programs have become commonplace in addressing environmental concerns. In this section, I will review some of the predominant issues concerning conservation practices as documented in academic literature. Conservation programs have grown in scope and significance, spanning from far off, “exotic” lands to programs initiated in our own backyards. However, as these programs took hold in the global economy, issues of marginalization and inequitable access to resources became more prevalent. This problem has been elucidated in the literature, where it has been argued that conservation programs frequently disenfranchise local people from forest resources. This phenomenon has been widely observed, from the various regions of India that are immersed in conservation programs (Springate-Baginski and Blaikie, 2007) to cases closer to home such as Warren County, North Carolina (DiChiro, 1996). As such, environmental issues are more often than not associated with social issues; that is, the practices of conservationists frequently undermine the livelihoods of the people that live in and around the areas that they seek to protect (Agyman, 2005; Pulido, 1996). In the Jamaican context, this issue

has been explored to some extent concerning marine protected areas (Carrier, 2006) as well as inland areas, such as the Blue Mountains (Weis, 2000).

Considering these examples in the Jamaican context, it is quite telling that the people who live and work in contested terrains such as Cockpit Country often express great concern over the effects of northern neoliberal practices in the global south. NGOs and academic research can play an important role in coordinating movements that combat neoliberalism, but often limit local attempts at social mobilization by playing somewhat of a go-between between north/south institutions in finding solutions that may temporarily appease all parties. Such programs frequently work to advance neoliberal policies. That is, their ideology and practice can be quite distant from those that would redress the source and solutions to poverty and environmental inequity. These organizations have a tendency to take a top down approach, ultimately marginalizing the voices of those they claim to help (Brosius, 1998; West, 2006). For example, to enter into a discourse of micro-enterprises, e.g., ecotourism, instead of developing transparent, bottom-up strategies to manage environmental resources suggests that the problem is centered on the individual rather than the movement of capital to foreign institutions (Petras, 1997). Since the 1970's, NGOs increasingly have become negotiators of the uneven power relations between people and institutions of the global north and south, whose practices more often than not have undermined the rights and capacities of the people they were supposed to help. Those at the top of this system often maintain their power drawing upon the labor and invaluable local environmental knowledge of rural populations whose work and intricate knowledge are not only exploited but help to propel the commodification of nature (Hale, 2002).

Taking these critiques of conservation and sustainable development programs from a more global perspective, it will be instructive to situate these perspectives in the Jamaican context. Considering this, the people at the bottom of the LFMC network, local farmers and Maroons, are situated in a paradigm of race, class, and gender that reflects the conditioning of local circumstances by actions occurring at other scales of the global economy, e.g., economic restructuring and the downturn in the global economy. They are immersed in a neoliberal capitalist development program that structures access to resources and opportunities unequally (Thomas, 2004). Jamaica, like so many southern nations (Polanyi-Levitt, 1991; Robotham, 2005; Thomas, 2004; and Weis, 2000), underwent IMF structural adjustment programs in the 1980s and continues free trade small state policies to current times, where the majority of profits from nature are directly deposited to northern institutions, leaving little benefit for the people of Jamaica (Polanyi-Levitt, 1991). Further, small-scale rural farmers have been effectively disenfranchised from domestic markets by the increase of cheap food imports over the last thirty years (Weis, 2000).

The paradigm of unequal access is deeply embedded in the structures of race, class, and gender that took shape in Jamaica with the British colonial plantation system. These conditions have been exacerbated by the downturn in the global economy, where the exploitation of the Jamaican working class people and their local environment is being repositioned in the sustainable development paradigm, in many ways serving to commodify nature. The inhabitants of Cockpit Country have a practical relationship with the environment through farming, the primary form of employment there (Barker, 1998), and direct interaction with the local environment more broadly. Practical engagement is likely to be important in shaping people's

relationship with and understandings of their surroundings (Carrier, 2003; Kellert, 2000).

Programs like the Cockpit Country LFMC natural resource participatory management program link “local populations, national agencies, and international organizations” (Orlove and Brush, 1996). These linkages bring together people with very different relationships with nature.

As these programs that link people with varying understandings of and relationships with nature were met with increasing resistance on the part of local communities--not to mention the seething reviews from a global community of social scientists--the rationale for the inclusion or exclusion of local people in conservation programs came to the fore of the environmental protection paradigm, and development more broadly in the case of Jamaica (Ladely, 2000). In response to these questions of inclusion and exclusion, the influential International Union for Conservation of Nature World Parks Conference held in Durban, South Africa widely touted the inclusion of local communities in the environmental protection paradigm to address this issue directly.

Protected areas generate significant economic, environmental and social benefits. These benefits are realised at local, national and global levels. Unfortunately, a disproportionate part of the costs of protected areas are borne locally. As with other forms of large-scale land use, many local communities have been marginalised and excluded from protected areas. Given that their natural and cultural wealth often constitutes an important asset for local communities, denying rights to these resources can exacerbate poverty. Protected area establishment and management cannot be allowed to exacerbate poverty (IUCN - The World Conservation Union, 2005).

Following the initiatives outlined in the proceedings of the Fifth IUCN World Parks Congress, community based “participatory” resource management and “sustainable livelihood” programs cum Integrated Conservation and Development Programs (ICDPs) have been increasingly woven

into the environmental protection discourse and practice (Adger, N.W, Brown, K., and Tompkins, E.L., 2006; Geoghegan and Renard, 2002).

Integrated Conservation and Development

A wealth of literature reviewing the successes and consequences of ICDPs has been widely explored. These are programs that attempt to integrate traditional biodiversity conservation programs with livelihood improvement projects. The basic premise behind ICDPs is that conservation programs stand little chance of achieving their broader conservation objectives without the cooperation and participation of local people in natural resource management, particularly when those resources are critical to people's everyday survival. Further, as conservation programs frequently bring about social and material losses for local groups, ICDPs are intended to overcome this pattern by including some form of compensation, whether it be direct economic incentives or in-kind promises of development (Schmidt-Soltau, 2004). Before pursuing an analysis of ICDPs in Jamaica, I will provide a review of the literature in a more global context to outline the critiques of these programs, which in turn led to my specific questions and analytical lens concerning the Jamaican context.

“Sustainable livelihood” projects, such as ecotourism, agroforestry, and craft production introduced into ICDPs in the Caribbean have been largely unsuccessful to date, often culminating in a failure to fulfill initial conservation objectives (Geoghegan and Renard, 2002). They often negatively affect the people at the bottom--those that have been marginalized through state driven neoliberal practices that deem worker and environmental health and safety second to company profits--by promising livelihood improvements that rarely come to fruition. Conflicts

between conservationists and local residents often come to a head concerning resource use and position, particularly when generations of environmental practices are put into question. Further, the ‘participatory’ nature of these programs has proven to be somewhat elusive -- much of the decision-making comes directly from the top, where those at the bottom more frequently form the labor force necessary to implement these projects (Geoghegan and Renard, 2002; Springate-Baginski and Blaikie, 2007). In this analysis, it comes as little surprise that, as an unintended consequence, tensions do arise between people at the bottom of the network (cf. West, 2006). The common issue of top-down processes that are conveniently highlighted in the literature (see Escobar, 2009 for some notable examples) seems, at least in part, to have been conveniently masked by the issues between community members, e.g. “who is in charge of development” (West, 2006).

Geoghegan and Renard (2002) suggest that participatory management projects should a) consider the heterogeneity of the people they work with; b) include only the appropriate institutions in the participatory process; c) include “transparent” processes of negotiation; and d) distribute the yields of participatory management in an equitable manner. The first suggestion questions the terms used to refer to people participating in sustainable development programs, specifically the notion of “stakeholders. This suggestion provides an opportunity to realize that people participating in these programs are heterogeneous--they make up a diverse collective of people where the differences in race, class and gender should be recognized; they include a range of people where groupings such as “stakeholders” often ignore the diversity of the people involved, which, in turn, creates a notion that access to resources and power is equal across all members. “Stakeholders” often include state officials, NGOs, international donors, and the

people who live and work in the areas of concern. Several questions remain, however. This heterogeneity should be further recognized on the ground. As in the example from West's (2006) work, these programs should take the time to recognize the inequalities that are present and may be exacerbated by the introduction of new and unfamiliar forms of development.

Conservation or development?

Another critique of ICDPs is their bias toward conservation over development. In the development of the ICDP approach, it had been widely agreed that conservation programs would struggle to achieve their conservation objectives without the support of the people that live in and around the areas of concern (Schmidt-Soltau, 2004). This very notion points toward an immediate bias; that is, one party wants conservation (NGOs, government agencies, international donors) while the other (local communities) wants development in some form. Several ICDPs have in fact reached their conservation objectives; however, these achievements frequently forget about the development aspect, realizing that the development initiatives set in place do not provide a wide enough scope to improve the “socioeconomic well-being” of the local people involved in these programs (Marcus, R. 2001).

One production of this bias comes in the form and structure of ICDPs. Several of these programs are developed and implemented by international NGOs, e.g. World Wildlife Fund (WWF) and The Nature Conservancy (TNC). A fundamental contradiction to the ICDP concept is the fact that environmental organizations, which are predominantly comprised of natural scientists and policy makers—the current director of TNC's Caribbean program has an MA in international policy and the director of the northern Caribbean region has a degree in aquaculture

and environmental technology—are at the forefront of these programs. Considering the disparate positioning of people in environmental organizations and the people they work with, there is a need to focus on capacity building, recognizing unequal power relations, dealing with unrealistic expectations, implementing truly “transparent” systems, and developing effective communication. Given this community development aspect of conservation programs, it is necessary for conservation organizations to develop capacity building within to ensure that the staff are capable of filling these roles (Campbell, A., Sayer, J.A., and Walker, B., 2010).

To address issues of capacity building, environmental conservation organizations have included community development professionals in their efforts to establish ICDPs as viable conservation mechanisms. They implement these practices on the ground and produce reports of broader ICDP approaches to development. Of particular concern is the lens through which NGOs develop ICDPs (West, 2006). TNC frequently produces technical documents that review past projects to inform the development of future programs. In a recent report produced by the lead senior social science advisor for TNC and colleagues (Leisher et al., 2010), it was suggested that increased biodiversity does not necessarily help to alleviate poverty, but “increased biomass” does. This concept promotes the increased exploitation of forest resources, albeit in a touted “sustainable” manner. Concerning non timber forest products (NTFP), a review of over 400 technical documents conducted by Leisher et al. (2010) led them to believe that practices such as agroforestry situated in areas with greater biomass produced poverty reduction benefits while increasing biomass. TNC’s position is that effective conservation programs will yield greater biomass, and therefore resources for NTFP exploitation at the community level. What this seemingly useful piece of information ignores is that these products, due to the auspices of

conservation programs, are harvested in larger quantity, necessitating systems for distributing these products in the global market place. As such, these programs seek to protect nature by commodifying it—a familiar consequence of earlier conservation programs (Faber, 1998; Katz, 1998). Further, the monetary benefits may not be fully realized at the local scale. This particular form of sustainable development, in a sense, follows the dominant development paradigm of the last 50 years—one of dominance and subjugation (Escobar, 1996).

As a response to the initial “fortress style” of conservation initially touted by TNC, as well as other environmental NGOs, ICDPs were intended to address issues of inequity by providing a participatory role for people in and around conservation areas. However, the literature has had a difficult task in identifying where these projects have achieved their stated conservation and development outcomes. Typical of ICDPs is a system of “trade-offs” (Campbell, A., Sayer, J.A., and Walker, B., 2010). This approach offers alternatives to what many environmental NGOs, government agencies, and international donor organizations have identified as unsustainable local practices, predominantly in the agricultural arena. In the context of Cockpit Country, such practices as harvesting tree saplings from the forest for the purposes of agricultural production and collecting wood for coal production have been deemed unsustainable local practices (FDJ, 2003). It is key to note that this criticism of local practice is readily and uncritically accepted by the aforementioned institutions—what may be argued to be a colonial language of environmentalism (Berardi and McGregor, 2009). With the identification of these practices and the alternatives that are being suggested, it is difficult to identify how ICDPs, or at least certain iterations of them, are any different from the earlier “fortress” styles of environmental protection widely popularized by environmental organizations like TNC (Klein,

Reau, Kalland, and Edwards, 2009). That is, when local communities have restrictions placed upon their environmental practices that have sustainably been used for generations and alternatives are delivered in a dictatorial fashion, this seems only a stone's throw away from environmental imperialism.

A common criticism of ICDPs is that they are implemented with “weak assumptions;” that is, there is a fundamental disconnect between the understanding of the implementing agencies and the community members they work with (Simpson, Davis, & Haynes 2010). This disconnect relates to the aforementioned bias toward either conservation or development, but goes further into understanding the frequently disparate and divergent views between NGOs, international donors, government agencies and local people. In a review of ICDPs, Hughes and Flintan (2001) laid out a series of assumptions that “evolved” out of the ICDP model. These assumptions state that a) local people will not support conservation projects unless their “basic needs” are satisfied; b) unsustainable local practices concerning natural resources may be curbed by providing sustainable alternatives; c) local communities will practice wise-use of resources if there is a clear connection between conservation and their livelihoods; and d) communities will participate in conservation if they hold a “stake” in the decision making process. While these assumptions may be perfectly valid, to a point, they also purport a certain language of subjugation. Take the first assumption -- people will “participate” in and support these programs if their basic needs are taken care of. This notion brings to mind an unsurprisingly clientelistic approach, whereby people's basic needs are leveraged to garner their patronage. In the context of Jamaica, this phenomenon has been leveraged extensively, particularly in the political system (Stone, 1980). However, the level of clientelism would certainly depend on how people's basic

needs are satisfied. If ICDPs are based on a system of “trade-offs” as described by Campbell, Sayer, and Walker (2010), then there certainly is a basis for arguing that the process itself is unethical and rooted in a history of political tension. While an in-depth critique of these assumptions is premature at this point, I will further elucidate the contradictions of this language in chapter 5.

(In)Equitable access to resources

Another aspect of ICDPs that requires clarification is the temporality of their assumptions. A community of people may very well “choose” to practice wise resource use; however, if wise-uses do not factor in to people’s everyday needs, e.g. food security, then it would seem that the choice to participate in such programs would be quite limited. To speak of wise-use concerns access to resources on several levels, a fundamental issue of equity. The literature points to several concerns over the equitable distribution of resources, as well as sharing environmental burdens (Pulido, 2000). For example, it is certainly an unequal approach for the conservationist to dictate access to resources, e.g. food resources, particularly when conservationists can readily access the resources they need (Escobar, 2009). However, what has been less studied is the impact of these programs concerning issues of equity in and around the communities ICDPs are focused on.

A major criticism of ICDPs concerns the power inequalities that they reproduce at multiple scales. This may be attributed to several issues, but is primarily attributed to the motivations of the facilitating agencies. In Paige West’s (2006) seminal work on ICDPs in Papua New Guinea, the World Wildlife Foundation (WWF)—one of the first international

environmental NGOs to develop ICDPs on a broad scale—was first and foremost concerned with developing conservation programs to harness the biodiversity in the area, predominantly for research purposes. As West (2006) argued, ICDPs frequently produce “unintended consequences.” West begins her critique with a picturesque description of a day in the life of Maiamfu village, Papua New Guinea, where two villagers were involved in a physical altercation over who was “...in charge of conservation” in their village. This type of tension between local “participants” is of particular concern in that it highlights the reproduction of inequalities in the context of ICDPs. In addition, it introduces a new aspect of inequality concerning power and access to resources in ICDPs.

Issues concerning the unintended consequences of such projects was particularly well depicted in Schroeder’s (1999) case study of a Women in Development project in Gambia, where gender inequalities were reproduced in the context of agroforestry. In this case, two projects came to a head; a system of gardens funded by Women in Development (WiD) programs, and land tenure and tree planting in a male dominated society. The WiD program was actually quite successful in this respect; women became significant contributors to household improvement. However, in a male dominated political economy, the success of the WiD program exacerbated existing gendered tensions and inequalities that the international donors and NGOs had not anticipated. It also brought the two projects in tension, where access to water resources for the purposes of agricultural production also became a gendered issue. As in the case of West’s work, these unintended consequences, at some level, worked to further divide the communities they were trying to bring together in the development paradigm.

Having reviewed the predominant issues concerning the problems and potentials of ICDPs, it will be instructive to develop a theoretical standpoint for unpacking the production of power inequalities concerning people participating in ICDPs and broader sustainable development programs. My intention is to harness a theoretical framework that will allow me to account for the nuanced ways in which people produce their material cum conceptual understanding of nature and society, and how people think and feel about the natural world

People's Material and Conceptual Understanding of Nature

Escobar (1996) argued that, “capitalist exploitation of people and the environment is organized according to the rules of the dominant development discourse of the last forty years, for which nature exists as a raw material for economic growth activities.” This paradigm has driven First World domination of natural resource accumulation in the global south throughout industrial history, and contributed to a state of ecological crisis in much of the south. One response to this ‘crisis’ is expressed in the discourse of biodiversity and sustainable development, which was outlined in the influential ‘Agenda 21’ at the 1992 United Nations Conference on Environment and Development. The objective was/is to push development toward a more ‘sustainable’ approach, whereby environmentally destructive practices are limited in order to provide for future generations. In Escobar’s analysis (1999), the resulting programs have produced and reproduced relations of power and knowledge among the various organizations and people working in the sustainable development, such as NGOs, universities and academics, and indigenous people. Those at the top of these programs include academics, NGOs, research institutes, and other experts located in the sustainable development network. They and the

sustainable development projects themselves often have proven to be new vehicles for old relations of domination. Escobar's emphasis on the discursive production of these conditions does leave some gaps to be analyzed, however. It leverages the construction of nature thesis, whereby it is understood that language is fundamentally constitutive of reality (Escobar, 1996). However, in agreement with Demerit (2002) I argue it is important to remember that such things as the rains of the Pacific Rim, for example, are not solely discursively constructed but have important material effects. In this particular example, the construction of nature thesis does not account for the material realities of rainfall, or lack thereof. This begs the question of how to conceptualize the material realities of sustainable development.

Let's consider the unintended consequences of sustainable development in the context of the construction of nature. The sustainable development discourse recognizes the potential economic benefits of "local" environmental knowledge and traditional agricultural practices. When practices remain non-commodified, or commercialized solely in local markets, they have no "global" economic significance. It is only when they are brought into the global economy that their commodity values can be realized. As a result, the knowledge and practice of people in the global south gains greater value in its realization in capital markets, while power is unequally distributed to those at the top of the network who are more closely affiliated with the markets themselves (McAfee, 1999). In the global south, the language of sustainability is reified through the power relationships associated with older systems of resource domination; in turn, these relationships are realized in many of the strategies and programs of sustainable development, e.g., ICDPs, which are fundamentally grounded in the processes of production.

With respect to providing a theoretical grounding that supports a materialist analysis, Smith (1984) presents the compelling notion of what he calls “the production of nature,” which sees people’s relationship with nature as one that may be viewed through the development of the material landscape in a historical context. This sort of transactional relationship touts environment and society as an ongoing space of interaction, depicting the relationship of people and nature through the myriad processes of production. However, this relationship goes beyond that of a material nature to one of people’s conceptual understanding of the natural world. Smith’s thesis is built on a set of culturally shared conditions, whereby people’s labor is simultaneously natural and social. Consider Smith’s thesis in the context of Cockpit Country; the people that live and work there have developed everyday practices whereby they directly benefit from the land—these practices shape their lives as well as nature. The people and institutions at the top of the sustainable development network participating in the project shape the landscape through their active engagement in conservation programs, e.g., ICDPs, by which their own conception of nature is produced through their activities. This analysis is rooted in the proposition that individuals cannot change the world around them without simultaneously changing themselves—the “production of nature” presents a global paradigm developed in a dialectic of the ecological and social; that is, people’s material and conceptual remaking of people and nature.

In this critique, Smith, like Escobar, sees the issues of sustainable development as not merely rooted in developmentalism, but as fundamentally political, economic, and social. Through this lens, it may be argued that the current conditions of Cockpit Country, as a place of marginalized rural poor people, have been produced and reproduced through the relations of

production in Jamaica. In other words, the exploitation of nature and society in Jamaica has pushed the people of Jamaica to the margins, one of the geographic margins being Cockpit Country. It is through this paradigm of marginalization by race, class and gender that these conditions have been reproduced in the Jamaican context. My emphasis on the material conditions of production is built on the premise that ICDPs are, as stated above in the context of sustainable development programs, hinged on the capitalist political economy, in which instrumental values are realized in the global market place. As such, taking a purely discursive standpoint would be quite limiting to the study of people and ICDPs; while discursive imaginaries certainly do play an instrumental role in the understanding of sustainable development, people and nature, the construction of nature thesis does not take into account the material realities of the thing, e.g. it would be difficult to analyze the unintended consequence of acid rain discursively (Smith, 2006). Rather, these programs tend to, at least in the context of ICDPs, which harness nature for research, tourism and the like, “absorb[s] nature more fully and completely within the circuits of capital” (Smith, 2007). Given the propensity of sustainable development programs for immersing people and nature in the dominant development paradigm, it is critical to develop an understanding of how these programs are formed and how the various people who “participate” in such programs form their values toward nature to begin to unpack the tensions that arise throughout the process of producing nature “all the way down” (Smith, 2007). Taking this approach will foster a textual and material analysis of people’s production of nature and society. In an effort to frame people’s disparate views and values toward nature, it will be instructive to frame the social relations of people participating in the current case study in terms of Smith’s (1984) production of nature thesis.

Concerning the production of nature, I argue that a critical approach to developing an understanding of how people “participate” in and understand ICDPs and sustainable development programs more broadly may be grounded in an analysis of the social relations among the people that participate in ICDPs. The processes of ICDPs are clearly rooted in the paradigm of globalization, whereby “actors” from near and far engage through multiple and varied networks that bring far away places into close contact with urban centers and the world more broadly. However, the majority of research concerning globalized spaces and places, to date, focuses on “commodity chains and overarching processes of globalization” (Woods, 2007). In contrast to research concerned with globalized spaces, I argue that developing an analysis of the power relations experienced among people with disparate views and values toward nature provides a more robust understanding of the problems and potential of ICDPs.

People’s affective affiliation with nature

My work seeks to build on Smith’s production of nature thesis and extend the broader political ecology literature through an analysis of how people think and feel about nature. To accomplish this, I argue that it is critical to develop an understanding of people’s affective affiliation with nature in the context of ICDPs. Further, considering how people think and feel about nature and how they feel in community with nature may help to facilitate pathways to environmental governance and community action (Nisbet & Zelenski, 2011; Mayer & Frantz, 2004). It has been shown that there is a direct association between one’s “connectedness to nature” and pro-environmental behaviour (Gosling & Williams, 2010). Intriguingly, Gosling and Williams found that environmental management behaviour in the context of farming is directly

related to the benefits of native flora; that is, farmers are more likely to participate in environmental protection when they understand how they can benefit from the environment in the process of protecting it. Interestingly, the literature stemming from psychology concerning “management behavior” extends the claims reported in the last section, where people are more likely to “participate” in ICDPs when there is a “trade-off” or benefit (Hughes & Flintan, 2001). In this context, it is particularly instructive to consider people’s connectedness to nature and the systems of “trade-offs” that are typically employed in ICDPs. In particular, it is critical to situate people’s connectedness to nature in the context of their everyday lives.

Further research has shown that a sense of connectedness to nature is the best known predictor of one’s willingness to participate in programs concerning nature preservation (Rader, 2010). While this may very well be the case, the research stemming from psychology tends to isolate the variables of concern, e.g. egoistic and biospheric concern (cf. Schultz, 2001; Snelgar, 2006). As such, the psychology literature concerning people and nature frequently ignores the “everydayness” (West, 2006) of the people and communities they study. To address this issue, I will re-situate the data concerning people’s connectedness to nature through the Environmental Psychology lens of transactionalism (Dewey and Bentley, 1949), whereby it is understood that the person-environment relationship is formed through ongoing interaction between people and the environment.

In addition to understanding people’s connectedness to nature, another promising approach to the study of people and nature concerns understanding people’s attitudes toward nature. Stephen Kellert has been conducting research in this area since 1981, and has made a valuable contribution to the field. In particular, in coordination with other researchers (cf.

Kellert et al., 1996), Kellert has made significant inroads into understanding how people's attitudes are formed through their values of nature and wildlife more broadly. This is influenced by perception, knowledge and general understanding of people's relationship with nature (Diaz, 2011). Kellert's research presents a typology of people's attitudes toward wildlife that is particularly useful in understanding individual attitudes. These include the humanistic attitude, where there is strong affection for nature a concern for its "existence, value and protection;" the naturalistic attitude, which is a strong affection for wildlife and outdoor activity; the negativistic attitude represents fear and active avoidance of certain animals and nature more broadly; the dominionistic attitude is one of control and mastery of animals and nature; and the utilitarian attitude concerns the practical use of animals and the environment for the benefit of people (Kellert et al., 1996). A promising feature of this work is its adaptability to both quantitative and qualitative modes of inquiry; recent research has used this methodology in the study of young people's attitudes toward nature in both qualitative and quantitative modes of inquiry (Douglas & Katz, 2009).

People, Nature and Values

Conventional wisdom has long held that concern about environmental quality is limited primarily to residents of wealthy, highly industrialised nations located in the Northern Hemisphere, as residents of the poorer, non-industrialised nations are assumed to be too preoccupied with economic and physical survival to be concerned with environmental problems (Dunlap & Mertig, 1995). Returning to my problem statement, I would like to reiterate that the current case study presents distinct contrasts to ICDPs throughout Latin America and the

Caribbean, in that it has been argued that Jamaicans in lower socioeconomic groups rarely mobilize to confront social and environmental inequities (Lundy, 1999). Further, it has been argued that the Jamaican small farmer class places little trust in themselves to manage environmental groups; they would prefer to see the brown middle class handle the day-to-day operations of environmental programs, particularly when it comes to handling finances (Thomas, 2004). However, it has been theorised that people's propensity for participating in environmental programs may be based on post-material value, where basic needs have been satisfied, allowing for more time and energy to consider causes like environmentalism, which were previously of lesser concern (Inglehart, 1990). Ironically, it is the Northern nations that are creating the high demand for natural resources, thereby making sustainability in Southern nations rather unsustainable (Harvey, 1996). This "conventional wisdom" was supported by the emergence of environmentalism and green parties in the industrialised world (primarily North America and Europe) as well as the wary reaction to the 1972 UN Conference on the Human Environment in Stockholm among the non-industrialised nations.

This post-materialist theory was challenged by Dunlap and Mertig (1995) where they argued that residents of low-income nations were actually slightly more likely to rate environment as a serious problem, but significantly less likely to rate it as serious relative to other national problems than their counterparts in more affluent nations. One of these problems, of course, includes economic conditions, which would seem to bring the thesis back in line with the argument of post-material values, i.e. values outside of the broader political economy (see below for an explanation of intrinsic values). This does challenge, however, the conception that there is little concern for environmental issues outside of the G8. In subsequent studies Inglehart

(1995) argued that lower income countries showed significantly greater concern for the future of environmental conditions. Ingelhart (1995) reported significantly greater support for the ecology movement in Latin America and Eastern Europe. Notably, the survey yielded almost universal support for environmental causes. However, concerning a “willingness to pay” for environmental services, residents in southern nations were not at the outset willing to invest in these issues. To contextualize this, some of the service offerings that would require a “willingness to pay” concern direct access to nature, e.g., admission to nature parks and access to NTFPs. In the Cockpit Country context, people participating in the LFMCs are expected to pay annual dues.

More recent research has focused on contingent valuation and people’s willingness to pay in greater depth, which has revealed one side of the valuation of nature. For example, in the context of access and control rights to the Adaba-Dodola Forest Priority Area (ADFPA) in the Bale Mountains of Ethiopia, it was found that people living within forest communities expressed a greater willingness to pay for access to the forest resources than those living outside of the forest periphery. However, these geographically distinct groups both saw a need for the preservation of the reserves vital resources (Bogale, 2011). In this day and age, it is quite clear that concerns for environmental issues are ever present in the global south, but there is a growing fetishism with determining the economic valuation of nature through scientific methods of contingent valuation (cf. Bogale, 2011; deGroot et al., 2001; Chool-Ki & Sang Yoel, 2002; Turner, Mores-Jones, & Fisher, 2010). However, it has been argued that these research programs, perhaps as an unintended consequence, are “well known mechanisms of achieving proxy commodification and can serve as precursors to the creation of real markets” (Castree,

2003). In this context, it will be prudent to further consider the notion of “value” in the context of ICDPs.

Valuation Defined

In the last decade conservationists, economists, ecologists and biologists, to name a few, have been increasingly challenged with finding ways to define the value of the natural systems (Dumitras, Arion and Merce, 2011). For many nations, economic valuation of nature is necessitated by broader economic circumstances, whereby allocation of government revenues must be applied to areas that are directly profit driven. This presents a precarious challenge in the paradigm of environmental conservation, as many southern nations are largely dependent upon their natural resources as a mainstay in their often small and fragile economies, such as Jamaica (Lundy, 1999). According to Marx (1976),

The notion of value takes on nuanced meanings according to the different groups of people attaching value and meaning to a thing. A thing can be a use value without being a value. This is the case whenever its utility to man is not mediated through labour. Air, virgin soil, natural meadows, unplanted forests, etc. fall into this category. A thing can be useful, and a product of human labour without being a commodity. He who satisfies his own need with the product of his own labour admittedly creates use-values, but not commodities. In order to produce the latter, he must not only produce use-values, but use-values for others, social use-values.

As in the quote from Marx’s *Capital*, there are various conceptions of value. For example, in-terms-of valuing natural resources, economists, ecologists and agriculturalists may attach very different value representations to the medium being valued. The subsistence agriculturalist satisfies her needs with her own labor, whereby the fruits of her labor are, in effect, use-values.

Further, if she does not sell her labour power, she stands on the periphery of broader political economy.

According to Freeman (2003), ecologists use the term to refer to the intrinsic value of a thing; that is, value is determined by that which is desirable for its own sake. “What confirms them in the view is the particular circumstance that the use-value of a thing is realized without exchange, i.e. in the direct relation between a thing and man, while, inversely, its value is realized only in exchange, i.e. in a social process” (Marx, 1976). That is, people may place a value on a thing according to their own interests. For example, one may value a pine cone for its various physical properties--texture, smell, etc. However, the pine cone may not take on the properties of a commodity in that it does not yield any broader value in society, at least in terms of exchange-value. Conversely, economists consider value to be the “ability of goods and services to satisfy human needs and wants or to increase the well-being or utility of individuals” (Bogale, 2011). These values, according to Freeman (2003), are grounded in the notion of intrinsic and instrumental value. The intrinsic value is something that is valued outside of the paradigm of market commodities. Instrumental value, then, follows as something that is valued as a commodity. Yet, as argued by Tietenberg (2003), these values are broadly anthropocentric; they consider the value of natural resources in terms of how they benefit people. These conceptions of value only provide a very narrow view, of which the more nuanced conceptions of value are largely ignored.

Concerning conservation, nature may benefit people through provisions of food and fuel wood, carbon sinks, and scientific information and pleasure (Ehrlich and Ehrlich, 1992). In contrast, a disadvantage of nature conservation includes limited economic growth (Swart et al.,

2001). This view leverages the notion of intrinsic values of nature, whereby nature is valued outside of the broader political economy. However, economists tend to promote “maximization” of utility, whereby use-values are grounded in the paradigm of instrumental values. As such, instrumental values appeal to the capitalist paradigm of accumulation, yielding a vastly uneven view of how environmental use-values enter into the paradigm of exchange-value, i.e. capitalism. In this respect, environmental governance has the potential to yield power to “the private and economic over the public and social” (Lo, 2012). Taking this into further consideration, it will be prudent to further unpack the notion of *intrinsic* and *instrumental value* in the context of the CCLFMCs, which I will begin in chapter 4.

Clark (2011) argued that sustainable forest management is hinged on the recognition of a more complete set of values, i.e. values outside of the labor theory of value and commodities more broadly. These might include spiritual values (Clark, 2011), ethical and moral values (Bhagwat et al., 2011), and “indirect use-values” (Baycan Leven and Nijcamp, 2005). So far, we have seen various value forms emerging from the data. For the people of Cockpit Country, intrinsic and instrumental value sets are combined in a broader formation of people’s sense of place, a production of nature. These are grounded in work and play, whereby people’s day-to-day activities work to form their understanding of nature. However, in terms of national economies, protected areas are increasingly being presented in terms of instrumental value. To expand on this in the context of the LFMCs, it will be telling to consider how ICDPs influence people’s valuations of nature.

Overview of the Dissertation

Chapter 2 provides a description of the people who participated in my project and a detailing of the research methods employed throughout my fieldwork., I will review my fieldwork visits over the course of two years, the development of my research questions during my initial fieldwork, and offer a rationale for utilizing an ethnographic approach to research concerning integrated conservation and development. Further, the chapter details the triangulated method of data collection that I employed in an ethnographic context. These methods included participant observation, where I worked directly with with community members throughout Cockpit Country; surveys, which provided a method for assessing community members connectedness to nature; interviews that provided a means for further delving into people's affective affiliation with nature and broader views of integrated conservation and development; and archival research to provide a basis for documenting and analyzing forest and mining legislation from 1886.

In chapter 3, I analyze all forestry and mining legislation and related documents published since 1886. These documents provided a means for understanding the implication of forest and mining policy for people living in forest fringe communities and provided a historical lens into conservation practices from 1886 to current times. Reading through these documents, I was able to compare current and past conservation and development practices, and identify the inherent contradictions of forest and mining policy in the context of integrated conservation and development in Cockpit Country.

Key to an analysis of people's participation in integrated conservation and development is an assessment of their connection to and valuation of nature. Therefore, Chapter 4 includes an

ethnographic analysis of the everyday practices of people living in forest fringe communities. Further, I included a survey methodology in this chapter, which allowed me to compare people's connectedness to nature in the forest fringe communities of Cockpit Country in relation to their lived practices, which I observed in detail. I employed Kellert's (2002) typology of attitudes and values toward nature in a qualitative context. In this chapter, I detail people's affective affiliation with nature in the forest-fringe communities of Cockpit Country, people's efforts to forge a livelihood in the wake of large-scale farming and broader land development initiatives, and the pursuit of land through integrated conservation and development.

The fifth chapter of this thesis builds on the third and fourth chapters through an analysis of the problems and potentials of integrated conservation and development in Cockpit Country. As these projects were established through the aforementioned Local Forestry Management Committees (LFMC), this chapter details the establishment of LFMCs in Cockpit Country; the objectives, practices and outcomes of the LFMCs; people's participation in and understanding of the LFMCs; and an analysis of the use of the language of sustainable development in Cockpit Country.

The sixth and final chapter of this dissertation addresses the theoretical and practical implications of my research in relation to the relevant literature concerning people, nature, and integrated conservation and development. I discuss the contribution of this research to the fields of political ecology and environmental justice more broadly. Finally, I will provide suggestions for developing a more situated process of sustainability that fosters people's experiential and affective affiliation with nature in the forest-fringe communities of Cockpit Country.

Chapter 2: Methodology

Introduction

In this chapter I will review my research questions, introduce the case study of concern, describe the research methods that I used, and provide an overview of my analysis. I conducted research for this dissertation in various phases from 2008 to 2010: this included an unstructured two week fact finding phase in June of 2008, followed by a one week trip to document the official launch of an LFMC ecotourism project in October of 2009, and five months in the field in 2010. My focus was the political ecology of integrated conservation and development in the Cockpit Country of Jamaica and the environmental practices and values of community residents and people “participating” in Local Forestry Management Committees (LFMCs) that have been established as an alternative to bauxite mining in the area. People participating in the LFMCs include community members in select areas of Cockpit Country, as well as educators and project facilitators from The Nature Conservancy, USAID, the Windsor Research Centre, the Forestry Department of the Ministry of Agriculture of Jamaica and a host of consultants hired to develop and implement capacity building programs such as tour guide training and agroforestry.

The research called for immersion in the study site where I drew on a range of ethnographic methods; including semi-structured interviews, surveys, what I call spontaneous community conversations (a type of focus group), participatory observation and action, and archival research. Following my initial, unstructured fieldwork, I grounded this methodology in the following set of research questions: How are the Local Forestry Management Committees (LFMC) formed, experienced, and understood by the full range of users of the land in Cockpit Country? How do the people who work in the Cockpit Country LFMCs translate their

experiences in recently established integrated conservation and development programs (ICDP) into their understandings of the relationships among race, class, gender and education as produced and reproduced through their work in the LFMCs? How do the people who work in the Cockpit Country LFMCs engage nature in their everyday lives, and how do these activities affect their valuations of nature and motives for protecting Cockpit Country? How have the Cockpit Country LFMC programs affected the livelihoods of their participants? To what extent have they fulfilled their broader conservation and development objectives? How have Jamaican forest and mining policy and the world economy affected the implementation and effectiveness of the Cockpit Country LFMCs? With these questions in mind, I focused on the operations of and concerns raised by various alternatives to bauxite mining and the implementation of these alternatives by The Nature Conservancy, USAID, the Jamaican Government and Forestry Department, the Windsor Research Centre, and Cockpit Country community based LFMCs, which encompass farmers, Maroons, and people who practice a range of trades throughout the more remote parts of the area.

An Ethnographic Perspective

My research concerns the social relations of people working together in an integrated conservation and development project in the Cockpit Country of Jamaica, and the material and conceptual outcomes of this project. Ethnographic inquiry provides a basis for documenting and analyzing the social relations among residents of select Cockpit Country forest-fringe communities, local and international conservation practitioners, international donors, and a host of professionals who contributed to the project from educating small-scale farmers and forest-

fringe communities on issues of deforestation and conservation to people lobbying in the political arena. These are projects that bring together people from various walks-of-life. The ideologies and practices concerning agricultural production and use of forest resources among these groups—groups that depend on forest resources for survival and those that do not—clearly took on distinctive differences. Taking an ethnographic perspective provides a framework to develop what Geertz (1972) called a “thick description” of the people, places and events surrounding a topic of interest. In a consideration of the current case study, a thick description provides a method for documenting the social relations of people involved in the LFMCs and the broader social, political and economic circumstances in which they are situated.

What the ethnographer is in fact faced with—except when (as, of course, he must do) he is pursuing the more automatized routines of data collection—is a multiplicity of complex conceptual structures, many of them superimposed upon or knotted into one another, which are at once strange, irregular, and inexplicit, and which he must contrive somehow first to grasp and then to render. And this is true at the most down-to-earth, jungle field work levels of his activity: interviewing informants, observing rituals, eliciting kin terms, tracing property lines, censusing households ... writing his journal (Geertz, 1972).

In my work, an ethnographic approach provided a systematic means for collecting data with respect to how people in forest-fringe communities engage with nature, how they connect with nature based on experience and emotion, as well as the social relations of people participating in the LFMCs. As such, a ‘thick description’ of the networks of social relations among people in the LFMCs can explain how “local systems” and national and international conservation policies and practices intersect (Gasseni, 2007).

Developing a Rapport

In ethnography, the researcher initially takes an open approach to their work; that is, “their orientation is an exploratory one” (Hammersley & Atkinson, 2002). In this respect, my fieldwork began in June of 2008 when I attended LFMC meetings in the North, South East and South West locations (see figure 2). After learning of the formation of the LFMCs and their response to bauxite prospecting in Cockpit Country over the course of 2006 and 2007, I contacted people from the Windsor Research Centre and The Nature Conservancy in 2008 to learn more about their work with the LFMCs, which led to an invitation to attend upcoming LFMC meetings in June of 2008 and meet the people participating in them. Without specific research questions or a methodology in mind, I attended the meetings, taking an exploratory approach to learning about their work and how to structure my study. I also spent time in the meeting locations talking with community residents about the LFMCs and their mission. While many of the people that I spoke with had reservations about joining groups like the LFMCs, the majority said they were a good thing; that is, they indicated that they believed the LFMCs could be an effective venue for resisting bauxite mining in Cockpit Country and developing new employment opportunities for people participating in them.

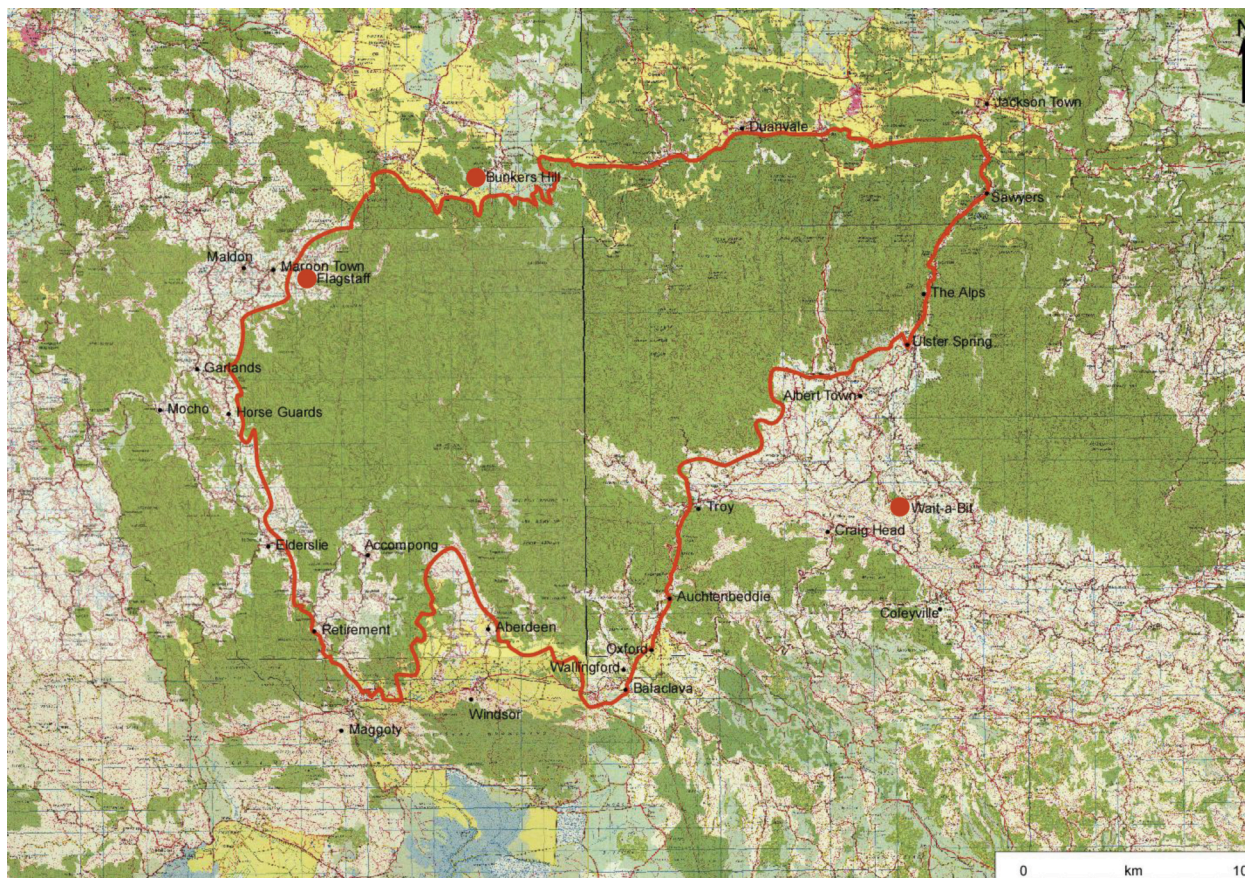


Figure 3: Local Forestry Management Committee locations in Cockpit Country (Modified from Mitchell et al., 2008).

During this initial trip to the field I began to develop relationships with people living in the respective forest-fringe communities who would have been otherwise inaccessible had they not gathered for these meetings. I exchanged contact information with several people in the area—in this context, local subsistence farmers who have been pushed to the margins of Jamaica’s political and economic structures—as well as people from The Nature Conservancy, the Forestry Department of Jamaica, USAID, the Small Business Association of Jamaica, and the Windsor Research Centre. Through ongoing contact, I began to build a rapport with those that would

eventually agree to take part in my research. Within a short time, my contacts began to reach out to me to update me on any news concerning the LFMC, e.g. capacity building programs they had completed or news of bauxite prospecting.

After my initial trip to the field in 2008, LFMC capacity building programs concerning tour guide training, food preparation, small business development, and a host of other activities designed to support Cockpit Country based eco-tourism ventures were arranged by TNC. The LFMCs officially launched their first eco-tourism project in Flagstaff in October of 2009. I attended the launch, which brought me back to the communities and people I had met on my initial visit. Having an ongoing relationship with key people participating in the LFMCs, I was immediately and warmly welcomed back into the communities, where people were familiar with my face and interests. Further, the relationships that I had already established were a good basis for the formation of new relationships. Atkinson and Hammersley (2007) argue that developing a rapport is critical in ethnographic research—a process by which trust must be established for people to open up to share their most intimate feelings and details about their lives. It seemed that many people saw my return trips as an indication that I took the project seriously, and that I was interested in people's everyday lives. These repeated visits helped to solidify my position as a researcher in the communities I worked in, as many people indicated that the researchers they had met in the past rarely spent time living and working in the these communities. These initial exploratory trips to the field helped me to establish a rapport with people who might have seen me as an outsider had I walked into these communities, surveys and audio recorder in hand, asking questions without establishing my role as a researcher intent on developing an

understanding of people's affective affiliation with nature and the impact of LFMCs in these communities.

As a person of Jamaican descent, I spent extended periods of my childhood in Jamaica. However, the majority of my upbringing was in the UK and US. As such, I recognized that I was not part of the same cultural group as those living and working in Cockpit Country. I was reminded of my otherness when I would hear people say, "white man come." In these instances, people regularly approached me as if I were a representative from USAID, commonly stating that they needed help in the areas of agricultural production and employment more broadly. However, my openness about my background and research interests was always met with interest. My recognition of my place and the differences between me and those with whom I was working did not necessarily situate me as a nonnative ethnographer. I have a deep understanding of Jamaican culture and language, and my familial and personal relationships served to foster and ease my immersion in Jamaican culture. Winchatz (2010) argues that nonnative researchers often look different, talk different, and walk different than those they are studying. In the context of my research, my behavior was recognized as being very different in many respects. But to what extent? Well, many people that I met with initially thought I was from Kingston or one of the other urban centers of Jamaica. Yes, I am very capable of walking and talking like a Jamaican, but what Jamaican am I speaking of? I do not look like a farmer or a Maroon—one look at my hands reveals that I have not done much farming in my life, at least beyond my weekend yard work routine. Yet, my knowledge of language, political events and history, and broader cultural knowledge qualified me as a "real Jamaican." And this was how I was referred to as the people I lived and worked with came to know me and my purpose in Cockpit Country.

Participants

Forty-five people that were actively or passively (had participated at some point) participating in three LFMCs in Cockpit Country participated in my project. Participants included local farmers and Maroons actively or passively participating in the LFMCs (N=34), TNC (N=2) and USAID (N=2) facilitators, and Windsor Research Centre (N=2) and Jamaican Forestry Department (N=5) staff, as well as 30 Cockpit Country residents who had not participated in the LFMCs (see table 1). After meeting key contacts in the field—community residents as well as NGO and USAID facilitators—I began to build a sample set for the bulk of my work in January 2010. I relied on snowball sampling as a method for leveraging the relationships that I had established during my initial field visits. My study did not require a representative population-based sample for the purposes of generalizing results across the broader population of Jamaica; given this, snowball sampling was an effective and appropriate method for recruiting participants (cf. Sadler, Lee, Lim, & Fullerton, 2010). Snowball sampling has been extensively employed in studies that involve difficult to reach populations (Griffiths et al., 2010), such as the communities of Cockpit Country. Noy (2008) argued that sampling procedures in qualitative research are not solely deigned to “enable and access knowledge;” rather, sampling procedures concern knowledge “in and of itself.” As such, snowball sampling, particularly in the context of ethnographic research, takes on a distinctly social charcter; “it both uses and activates existing social networks” (Noy, 2008). As I understood that it was critical to continue developing new relationships, the snowball sampling technique was quite conducive to my work in this respect—it served to build on the rapport that I had established with key community members and pique the curiosity of those I had yet to meet.

Region	Active Participants	Passive Participants	No Participation	Women	Men
North	10	1	12	11	12
South East	9	1	10	10	11
South West	9	4	8	12	8

Table 1: Local Forestry Management Committee Community Participation.

During my return trip in May 2010, I was formally reintroduced at the LFMC meetings, where I spoke about my research objectives. I also asked if anyone had any reservations about my project and if they would like to be excluded in any way. I invited the LFMC members to speak with me after the meetings to raise any concerns, and to my surprise, none of the LFMC members declined to participate. From there I was granted access to lists of LFMC members, from which I chose a random sample of LFMC participants (N=34) to interview. I also interviewed all LFMC executive committee chairmembers who were willing to participate (N=3). I continued to use the snowball sampling method to recruit community members that were not participating in the LFMCs. Finally, I spoke with all LFMC participants from the Forestry Department of the Ministry of Agriculture of Jamaica, The Nature Conservancy, USAID, and the Windsor Research Centre, as they were a small group (N=11).

Procedures

Throughout the course of my fieldwork—including my initial trips—I joined the LFMCs in their meetings and other activities, and acted as participant-observer taking fieldnotes on the activities of the people who work in the LFMCs. I also interviewed community based LFMC

participants (N=34), The Nature Conservancy employees in the area (N=2), USAID representatives in Kingston (N=2), Jamaican Forestry Department facilitators (N=5), and Windsor Research Centre employees (N=2) involved in the LFMCs. I also conducted interviews with community residents who were not actively participating in the LFMCs. I developed a typology of land use in Cockpit Country and interviewed community residents who were not participating in the LFMCs with a modified version of the interview protocol (see appendix 2) that I used with the LFMC participants to ensure that the full range of users were represented in my research. Finally—perhaps most importantly—I engaged community residents and LFMC participants in strategic, unplanned group conversations or spontaneous focus groups, if you will, to draw on collective views of environmental issues and the work of the LFMCs.

Participatory Observation and Action

In an effort to systematically document people's work in the LFMCs and their everyday routines in Cockpit Country more broadly, I utilized a participatory observation methodology. Participatory observation is a process of data collection, whereby researchers immerse themselves in an ethnographic context. In this process the researcher engages in dialogue and interacts with members of the group under study, yet this process requires participation in the community that concerns the research. According to Timseena (2009), the researcher “acts as a member of the community and collects information acting as if he/she were from the same cultural group where the study is going to be done and understand [sic] all phenomena occurring in the group.” As a general description, Timseena's view needs to be refined. I argue that, while the observer is certainly part of the community, at least for the time that they live in the

community, it is difficult to assume that the observer will be or should act as if the researcher is part of the same cultural group. As noted in the *Developing a Rapport* section, I was able to recognize some of these tensions and address them through my cultural knowledge and experience, which, in the Jamaican context, helped to make participant observation an accessible process in my work.

The process of participant observation allowed me to document the daily routines and environmental practices of LFMC participants and community residents, and any efforts to protect Cockpit Country and the livelihoods of the people that live there. Documenting their everyday routines and activities addressed all of my research questions, at least in part. Among the activities I observed were farming, ecotourism, craft production, and community outreach. The participant observation portion of the study started during my first trip to the field in June of 2008. Starting participant observation right away allowed me to detail all seasonal project activities during the course of my fieldwork. Drury et al. (2011) describe participant observation as a process of identifying the “unexpected and previously unknown,” preparing the researcher to investigate tensions between what people say and what they do. And this tension was quite common concerning people’s said motives for protecting Cockpit Country forests from bauxite mining, as well as a host of other issues. These issues will be explored in detail in chapter 4.

While I was hesitant to begin to work in an action context—working directly with the community based LFMCs, e.g. writing funding proposals—I found that the incredible way in which people opened up the space and place of their lives to share their most intimate details with me was quite profound, yet this went further. Many people in the LFMC saw me as someone that had experience with language and tools that they had not been exposed to, namely

forms of communication technology and experience in grant writing. Several of the people in the LFMC executive committees approached me to ask for assistance in writing letters, emailing government officials, and writing grant proposals. As a part of the communities that I was working in, I thought it imperative to accept these requests and offer assistance wherever I could. In this respect, I came to be seen as an expert in what LFMC members referred to as the “more technical aspects” of the project.

As I moved further toward the action context, where I was in some way attempting to help produce change within these communities, the hierarchies between the researcher (me) and the researchees always seemed to have some presence, often around questions of race and class. While I was widely accepted in the communities where I worked, it was always recognized that I was a graduate student who would return to the U.S. to pursue a career in the academy—something that the vast majority of people in Cockpit Country would not have the opportunity to do. While it was critical to maintain an awareness of this, I also participated in several activities that community residents in Cockpit Country thought I did not have the experience to accomplish without guidance. Some of these activities included agriculture, where I would help to dig yam hills and harvest yam. Another activity included clearing trails with only a machete in preparation for the LFMC ecotourism project in Flagstaff. Of course, as a person of Jamaican and English descent, with well-established family roots in agriculture and animal husbandry, these were familiar activities and tools. To the bewilderment of my colleagues and friends in the area, I displayed well developed skills in these practices. In only a short time, I came to be known as Prof, not to say that I was a professor, but that I displayed skills in various areas, while also recognizing my difference; again, I am a person from the U.S who will pursue a career in

the academy. During one morning as I chopped trails with LFMC members, one of my compatriots called out, “me know wha me call ya, Prof!” I asked why since I was not a professor. He said, “yuh just good at everything, so me call ya Prof!”

The participatory observation context came to further embed me in the communities that I worked with; not only did it allow me to help with the projects to produce some sort of effect, but to further build the relationships that I had begun to establish since my initial trips to the area in 2008 and 2009. I also engaged my research participants in a dialogue concerning how my research may be used to inform their projects, as well as refining my research instruments. For example, several of my initial interviewees made suggestions for refining the language of the Connectedness to Nature survey that I used.

Interviews

I addressed the participants’ valuations of nature, ecological knowledge, understanding of the bauxite mining context, and motivation for participating in the Cockpit Country conservation project through semi-structured interviews (See Appendix 1). The interviews were conducted throughout the course of my fieldwork. In these interviews, I asked about the participants’ daily routines around the LFMCs; that is, their work in Cockpit Country, their roles in the various LFMC projects, and the sustainable development strategies they have developed and implemented. I asked LFMC participants about their engagements with nature in Cockpit Country and Jamaica more broadly, and their relationships to Cockpit Country now and over the course of their lives. We discussed such matters as the problems and potentials of mining in the region; the role of environmental NGOs; their perspectives on environmental protection,

sustainable development, and agriculture; and their own roles in these activities. At the end of each interview, I read a series of statements from the “Connectedness to Nature Scale” (Mayer & Frantz, 2004), and asked them to rate the statements on a scale of 1 to 5 to indicate how important or relevant each statement was to them (See Appendix 3). The interview and survey methodology allowed me to begin to answer my research questions and make several comparisons among groups of participants such as community members who were and were not participating in the LFMCs, community members and LFMC facilitators, men and women. I was also able to draw out comparisons between the participants’ narratives and everyday routines and their responses to the connectedness with nature scale, which enabled me to compare what people say with what they do (Harvey, 1996).

The ethnographic interview process provided a method for gathering rich, detailed data from people who were involved in LFMC projects situated in the direct social world of forest-fringe communities. Sherman Heyl (2001) argues that, “...the researcher’s job in an ethnographic interview, then, is to communicate genuinely in both subtle and direct ways that ‘I want to know what you know *in the way that you know it*. ... Will you become my teacher and help me understand?’” This approach and attitude on my part helped to facilitate the interviews and develop a sense of mentorship on the part of the people whom I interviewed, which extended beyond the interview process. For example, I was quite interested in people’s life histories in Cockpit Country, and the people I spoke with were quite pleased to tell me about their childhoods, growing up in Cockpit Country. This would typically turn into an educational discussion, where my research participants would take me on adventurous stories of their lives, explaining forest legislation and agricultural practices along the way. But this process continued

in every aspect of my time in Cockpit Country; I was instructed on how to refine my technique when splitting sugar cane (a snack we frequently enjoyed) or how to hand wash my laundry, as well as how to prepare and use bamboo as an alternative to yam sticks.

A major theme throughout this chapter concerns an awareness of the nexus between speech and action; that is, what people say and do. In my fieldwork, there were several lively conversations when I interacted with community members in groups of two or more—arguments and counterarguments were commonplace when discussing issues of environmental protection and sustainable development. By employing this strategy, I was able to tap into how community members interact on these issues, and develop an understanding of how community members think and feel about sustainable development and other issues in their communities and Jamaica more broadly. Further, it provided another unit of analysis concerning the nexus of speech and action through a comparison of what people said during semi-structured, ethnographic interviews and in their spontaneous conversations with friends and associates. In my work, the spontaneous conversation was a frequent event. Much of my time outside of working directly with the LFMCs was spent in the town centers of Cockpit Country, interacting with community residents over beer, rum, and food. Koven (2011) argues that the interview context creates a space for the retelling of experiences that might be described in “naturally occurring” contexts, i.e. in everyday speech. Everyday interactional contexts outside of the interview context can provide a “safe” space for the expression of thoughts and feelings that may jeopardize a person’s standing in a politically charged environment, such as a democratically elected LFMC executive committee member. In my work, the formal interview context did bring about some reservations concerning naming names and such—for the most part there was always a recorder present,

albeit unused when recording was denied by the participants—but did not interfere with the narrative story-telling process. However, in “naturally occurring” contexts, impassioned responses and naming were commonplace. This may be related to the fact that rum was frequently a part of the “naturally occurring” context, yet it was also frequently a part of the interview context, as it was, for many, a part of everyday life.

Archival Research

To address my research question concerning Jamaican forest and mining policies I conducted archival research in the Ministry of Mining and Telecommunications, the Ministry of Agriculture, the Jamaica Bauxite Institute, and The Jamaican Forestry Department. Jamaica has a long and precarious history of forest legislation dating back to the 19th century. The first formal forest report was produced in 1886. During my time in Kingston at the aforementioned institutions, I was able to gather all major forest legislation documents that had been archived since 1886, as well as a host of papers and policy documents, including those concerning mining and Crown sovereignty over valuable minerals. Many of these documents reflect changing land use policies since 1886. These documents provided a basis for understanding how the forests were used from the 19th century and outline conservation concerns on the part of the colonial and post-independence governments.

In the context of integrated conservation and development and sustainable development more broadly, archival research is an effective method for “approximating social and demographic histories” (Tucker & Ostrom, 2005), and understanding how processes of the past have shaped current circumstances. As a major objective of the LFMC was to protect the forests

of Cockpit Country from further destruction, the archival documents that I analyzed provided a lens for assessing governmental views on how much forest degradation has occurred in the last century, what initiatives have been taken on the part of the Government of Jamaica concerning forest conservation and use, and the predominant causes of forest degradation and biodiversity loss. These documents also provided a baseline of information from which to triangulate data for comparison (cf. Jick, 1979). For example, the archival documents described peasant agricultural practices, which I compared with current agricultural practice and life-history narratives stemming from my interviews and participant observation. Archival research also provided a method for unearthing the specific locations that ALCOA and JAMALCO were prospecting in Cockpit Country, the quality of bauxite in the area, and the processes by which prospecting and mining are carried out. I also collected census data from various government ministries, predominantly from Jamaica Information Services. This data provided valuable information concerning farming practices, farm sizes and holdings, and agricultural output. Finally, I collected over 100 articles published in the *Jamaica Observer* and *Jamaica Gleaner*, as well as a host of other publications to stay abreast of how the current case was presented in the media.

Analysis

Participant Observation and Action

Rooted in grounded theory (Glaser & Holton, 2004), I used my participant observation fieldnotes to develop a descriptive framework detailing the LFMC participants' everyday routines, such as their farming practices and work in the LFMCs. By analyzing my observations and interactions with the participants, I was able to complement the participant observation data

with data obtained in the interviews and the Connectedness to Nature Scale, as well as the archival data. I also used participant observation to develop a typology of land use in Cockpit Country. As many of the agricultural practices of Cockpit Country residents were identified by The Nature Conservancy and The Forestry Department of the Ministry of Agriculture of Jamaica as being environmentally unsustainable, it was critical to develop an understanding of these practices, their frequency among the communities that I conducted research in, community views of sustainable development practices and their utility, and changes in agricultural and other environmental practices over time.

Connectedness to Nature Survey

The Connectedness to Nature scale (Mayer & Frantz, 2004) was analyzed using analysis of variance (ANOVA) in SPSS for each participant and triangulated (Jick, 1979) with the interview, participant observation, and archival data. The quantitative data were organized to compare people's connectedness to nature between the three LFMC groups, as well as between people participating in LFMCs compared to those who were not. The survey consisted of 14 items that were designed to measure people's connectedness to nature based in emotional and experiential variables. Items 4, 12, and 14 were reverse scored before conducting the analysis, as these questions were negatively worded. The surveys were analyzed to test for independence between groups: LFMC location, LFMC participants and non-participants, gender and age. An *a priori* power analysis yielded a required sample size of 60, and the current sample of community based residents (N=64) met this requirement. To add to the depth of the survey data, qualitative responses to the survey were paired with the quantitative data; that is, the survey questions also

elicited narrative responses. This was a result of the format in which I delivered the survey, where I read each statement aloud at the end of each interview. Rather than each participant sitting over a survey in isolation, the interview format afforded a social space where interviewees spoke openly about their thoughts and feelings concerning each survey question. Based on the grounded theory (Glaser & Holton, 2004) approach that I employed for analyzing field notes, qualitative responses to the survey were analyzed using a thematic analysis to highlight themes and pair them with the quantitative data.

Interviews

The interviews were transcribed and coded in AtlasTi for thematic content, which enabled a narrative analysis framework where I was able to identify and highlight emergent and co-produced meanings of nature, understandings of environmental protection and bauxite mining, and narratives of environmental stewardship—shared or not—by the group as they negotiated their way through the challenges and activities of their project. Building on Dewey (1938) who said, “people are individuals and need to be understood as such, but they cannot be understood only as individuals. They are always in relation, always in a social context,” it was critical to integrate a method of analysis that allowed my work to highlight how people produced meanings of the forest, forest life, and forest conservation. In this instance, I conducted my analysis in the spirit of Rappaport (1969), who argued that people’s narratives are instrumental in providing a unit of analysis concerning their lived experiences. It is these lived experiences as relayed by the research participants that form the backbone of my research. These are narratives that have been co-produced throughout the history of Jamaica, concerning forest use, politics, economics, and

society more broadly. Daiute and Lightfoot (2004) argued that narratives are a way of organizing people's lives, relations, understanding of past events, as well as preparing for the future, and the retelling of these stories works to reinforce their meaning. Of course, I worked with a diverse range of people in an equally diverse range of places in and around Cockpit Country, Kingston, and Montego Bay. As such, the narratives of people living in forest-fringe communities yielded a very different meaning than those living in the urban centers. Also, narratives of people participating in the LFMCs compared to those who did not also yielded interesting differences. These are all groups that, in some form, have co-produced meanings of forest life and environmental protection. Of particular interest is how these narratives may or may not stand in tension with each other and how these narratives are produced and reproduced amongst groups that represent a diverse range of race, class, gender, and age.

Chapter Summary

In this chapter I have specified the methods that I used to collect data throughout this research project. The methods were carefully selected to garner as much detailed data as possible, while triangulating the data to ensure validity. As I have stated throughout this chapter, a major component of my methodology was to draw out people's lived, said experiences, while comparing what they say with what they do. Further, it was imperative to find a space for people to express themselves while avoiding political fallout with other LFMC and broader community members. The research that I engaged in concerned the hotly debated topic of bauxite mining in Jamaica, tensions between forestry officers and forest-fringe communities over agricultural and forestry practices, as well as a highly charged political environment in the LFMCs—as will be

depicted in chapter 5, political infighting and threats of violence were an unintended and unavoidable consequence of the project. Therefore, establishing myself as a researcher in the area, one who was intent on learning about the people and places surrounding the project and using the data to further inform these projects and their processes, was a critical step in the research process. As such, the triangulated method of ethnographic data collection that I employed was well received by the communities in which I worked.

Chapter 3: A Brief History of Forest Legislation and Use

In this chapter, I will develop a brief history of policy and practice concerning the forests of Jamaica, with particular emphasis on Cockpit Country. In order to begin to understand how an application of integrated conservation and development may be applied in Jamaica, it is critical to leverage the history of forest legislation and forest use among all users of the land in Cockpit Country. The history of colonial forest legislation in Jamaica is hinged on three seminal reports produced between 1886 and 1945, with a series of policy documents published thereafter. These seminal reports include the Hooper Report (Hooper, 1886) along with subsequent surveys carried out by colonial forest rangers in 1935 and 1945 (Evelyn & Camirand, 2003). My aim in reviewing these reports is to develop historical linkages with current legislation and practice, as well as understanding how these linkages factor into the paradigm of integrated conservation and development in Jamaica.

The Hooper Report (1886)

The Hooper report (1886) provides a rich description of the forests of Jamaica, including physical geography, biodiversity, meteorology, and land use. For the purposes of the current research, I will focus on Hooper's report of forest use, as well as his suggestions for conserving the forest resources of Jamaica. Hooper reports on several demographic factors, including population statistics, which were included in the report to "point out how far the land settlement has been affected by the peculiar conditions under which both capital and labour have come to the island." My aim in including this report is to provide a historical underpinning and draw historical linkages to the current research.

In the 40 years following the establishment of Jamaica as a British colony in 1655, large scale sugar plantations were established in the low lying areas of the country. Permanent land grants were established, whereby the majority of Jamaica's arable lands were apportioned for large scale agricultural production, notably sugar cane production. In complement to this, with the establishment of a slave based labor force, additional lands were apportioned away from plantation lands for the purpose of producing food supplies to support the growing slave population. According to Hooper, this process continued until all lands in Jamaica—with the exception of the Cockpit Country based parishes of Trelawny and St. James, which were deemed unsuitable for large scale agricultural production—were consumed by large scale agriculture in some form. In addition to the Cockpit Country lands, Hooper noted a second exception to the system of patents briefly described above, being Maroon land tenure. Hooper states that the Maroons have "... at all times in the history of Jamaica, held an undefined sway and control over lands surrounding their settlements..." (Hooper, 1886). Of particular concern here is the ongoing discussion of land tenure in Cockpit Country (see above). However, Hooper goes on to state that, to the benefit of the crown, the "Maroons are happily losing in some measure their identity and claims for considerations as a separate privileged body" (Hooper, 1886).

Hooper was particularly concerned with sources of deforestation in Cockpit Country and Jamaica more broadly. He ascertained that the level of soil fertility in the forests of Jamaica was so rich that, barring "human encroachment," the former state of the forests would return with little difficulty. To this end, Hooper, quite explicitly, described his thesis on the causes of deforestation. To begin, it has been well documented that slaves in Jamaica were responsible for producing their own food as well as food for the planter population (cf. Weis, 2006; Beckford,

1972), and this practice receives particular attention in the Hooper report, whereby it is argued that, “the history of forest denudation may be described as the history of negro cultivation” (Hooper, 1886). In this practice, the enslaved would clear small, one acre plots on hilly plantation “backlands,” that were deemed unsuitable for large scale production, by clearing timber and burning the remaining vegetation. After all vegetation had been cleared, yam were planted for one growing season. The farmers would then select another portion of land near the former plot, allowing the land to return to its “pristine” state. It was common for the farmers to seek plots of forested land that were distant from their neighbors “for the reason that yam stealing is so prevalent among the cultivators, as a class” (Hooper, 1886). It is clear that there is an early relationship between enslaved populations and forested areas that were imbued with meanings of survival and resistance to harsh colonial conditions.

Following up on what Hooper refers to as a set of “peculiar conditions” regarding Maroon forest use and “negro” cultivation in Jamaica more broadly, I will briefly focus on land tenure as outlined by Hooper. Following emancipation in 1834, small plots of land were sold to the burgeoning small farming class; though, land titles were rarely issued to small farmers. Considering the dwindling sugar economy—a product of competing markets abroad and emancipation, whereby the landowners lost their free source of labor—it was found easiest to dispose of land by partitioning plantations in preparation for sale. However, the plantation economy began to reestablish its presence through a growing banana export market (Weis, 2006). Free men purchased allotments to establish homes with small garden style plots around the farmer’s homes, whereby the land was utilized to grow household provisions, e.g. fruit. It was noted that “peasant” farmers preferred to rent small plots of land for farming. These plots

typically ranged from one to two acres, with yam being the principal crop of choice. However, land holdings continued to be dominated by the planter class as the expansion of the small farming class continued slowly (Munroe & Robotham, 1977).

The slow expansion of the small-scale farming class may be attributed, at least in part, to post-emancipation policies, which afforded a space for the planter class to continue to monopolize the fertile low-lands while being compensated for any property loss, also being compensated for loss of labor through the apprenticeship system (Mintz, 1985). The apprenticeship system (1834-1840) forced ex-slaves to work for their former masters for a period of four to six years. This was rationalized by the colonial need to transition to a new economic system to support the emergent “peasant” class. However, “the nature of the slaves own economy in the Caribbean, with its extensive provision-ground system and highly-developed markets, meant that the slaves were probably better prepared for their freedom than their former masters” (Heuman, 2007). Meanwhile, ex-slaves did not receive any assistance; after the apprenticeship period ended they were left with the “choice” to continue their dependency on the planter class, either through wage labor or tenant farming practices. The other “option” for the “peasant” class, which was adamantly opposed in Hooper’s report, was to locate lands in Jamaica’s rugged interior, where the “peasant” class could produce new lives as free people. Of course, apprenticeship curbed this phenomenon to some extent by developing a dependency between the planter class and newly manumitted people who did not have the resources to purchase land, as well as Hooper’s forestry policy suggestions, which lay blame with “negro” cultivators for deforestation.

Building on the contradictions of colonial Jamaica's land use, forestry, and agricultural production policies, the British colonial large scale plantation system reinforced the practice of yam harvesting as a staple product for supporting the slave population—a process that would define generations of the proto-peasantry practices. The proto-peasantry is a class that redefined their cultural, agricultural and mercantile practices during enslavement, firmly taking hold in the small-farmer class in the post-emancipation period in Jamaica (Mintz, 1974). In fact, it was the proto-peasantry that, through their subsistence farming and mercantile systems, were able to produce a surplus to sell to “free people” during and after the slavery era. This practice, in effect, firmly supplanted the proto-peasantry in the post-emancipation agricultural economy, yielding a small-scale farming class with a high degree of market dependence (Mintz, 1985). However, from Hooper's report to literature in current journals, rather paradoxically, yam cultivation takes a major part of institutionalized sources of blame for deforestation in Cockpit Country and the forests of Jamaica more broadly (Beckford and Barker, 2007). This stands in direct contradiction to the demands of the planter class, whereby their own consumption patterns and mandates for ensuring food security in the slave population dictated where yam production took place.

Another pattern observed in Cockpit Country, which also crosses over with the current literature, is squatting (cf. Tole, 2006). In Hooper's report, it was noted how “present owners are indebted for their landed property to the generosity of the original proprietor...” However, those manumitted peoples who were not fortunate to benefit from the plantation owner's “generosity” were faced with the conditioning of local circumstances, whereby land, employment and food provisioning were relatively inaccessible (Weiss, 2007), ultimately leading to the expansion of a

landless, rural proletariat. In contrast, following from the proto-peasantry, the small-scale farming class that had reestablished themselves in Cockpit Country following emancipation were no longer faced with large-scale plantation agriculture—though many still worked as migrant laborers or sold their labor to medium-size farm owners—facing a necessary move to small-scale and subsistence based agriculture based on a hybrid of traditional African and colonial practices (Weiss, 2007). With the abundance of lands suitable for small-scale production in the rugged interior, “squatters” became more prevalent and began to claim equally small spaces to plant their produce. In line with the paradigm of growing provisions away from land that had been purchased, both through rent and squatting, the small-scale farming population extended the practice of farming within forested areas. Forest cultivation provided a means to develop plots that were some distance away from “neighbors,” whereby the small-farmer class benefitted from the remote and densely forested areas that provided some protection from thievery and winds (Hooper, 1886). In support of these emergent practices and without any form of support from the colonial government, the “peasant” class developed cooperative systems for clearing land for farming, developing rudimentary road systems in the country’s interior, as-well-as cooperative banking and credit systems stemming from a developing money economy (Girvan, 1993; Weis, 2007).

Hooper mentions other forms of produce farmed by the “peasantry,” including ginger cultivation, where fire was (as it still is) typically used to clear the lands. It is noted how fire clears generations worth of forest growth in favor of a crop or two taking its place. A major contradiction to Hooper’s thesis here, which he noted himself, is that in the absence of human encroachment, the forests would quickly revert to their former state. However, Hooper seems to

take particular aim at the marginalized small-scale farming population. To build on this, he also criticized Maroon groups for their “subsistence on hunting, fishing and growing forest crops rather than on the ordinary means of existence...” as an alternative lifestyle where they developed their culturally specific customs and practices (p. 17). However, these practices were also adopted by the burgeoning small-scale farming class during and after apprenticeship. In fact, it has been argued that poaching became a form of resistance to the apprenticeship policies (Heuman, 2007).

Prior to the Hooper report 1500 acres of forest land in Cockpit Country was ceded to the Maroons of Accompong after the first Maroon war through the treaty of 1739 (Kopytoff, 1978; Martin, 1972), which provided space for the further development of these practices. However, Hooper claims that the Maroons roamed the forests of absentee owners and Crown Lands, completely disregarding any notion of Maroon land tenure. While Hooper acknowledges that deforestation stemming from Maroon practices was marginal, he implies that they may be, at least in part, responsible for curbing forest use among the small-scale farming class as they were “terrified” of the Maroons. In effect, Hooper describes the Maroons as a fundamental part of the ecology of Cockpit Country, whereby, much like the “daylight mosquitos,” the Maroons were a part of the natural defenses of the nature of Cockpit Country.

Given the small-scale farmer perception of Maroon’s in Cockpit Country and Hooper’s views of Maroon society, it is interesting to note that he suggests that the Maroons would be instrumental in the formation of a forest guarding agency. This clearly comes out of his recognition of the lack of revenue generating forest enterprises and the difficulties in establishing a dedicated forestry department.

I do not anticipate any difficulty in introducing forest conservancy in Jamaica, but I would advocate being gradual. It must be borne in mind that it is invariably a matter of expense to the community at large, at first, and in the case of Jamaica I do not foresee any means whereby it can be made a self-supporting branch of service for some years to come much less its becoming a true revenue department. Its value however will be traceable in indirect ways, and apart from climate effect it will enable Government to have a complete knowledge of its timber resources, and be useful in many subsidiary ways.

To this end, the reader will find it interesting that Hooper's primary plan for providing forest guards was to enlist Maroons. He states that they would be fairly compensated in land for their work in forest protection at fair market value. This raises an interesting notion in that the Maroons were already using the lands of concern, not to mention that at least 1500 acres of Cockpit Country land had been ceded to the Maroons of Accompong in 1739 (Dallas, 2002). Following is Hooper's list of suggestions for conserving the forests of Jamaica:

1. To reserve the highlands of the Blue Mountains, escheating all the land liable to forfeiture, and arranging amicably with the neighboring proprietors for the surrender of such backlands useless to them that they may be willing to part with, and obtaining all lands in private hands on the ridge and near it.
2. The demarcation and survey of the reserve so formed and its protection against fire and theft and trespass, employing Maroons for that purpose.
3. The retention of forest reserved of all blocks of Crown lands on the limestone formations that exceed two thousand acres in extent: to restrict ground provision cultivation in them wherever possible of expedient, protecting the reserve against felling of valuable timbers and generally conserving them.
4. The rigid enforcement of all the conditions of the Cinchona leases, and in the case of new leases the addition of a clause providing for the protection of hill sides from having more than three acres cleared in one spot at a time, and no further ridge lands to be so alienated, while Cinchona lessees be relieved when they wish from their leases.

In conclusion of my review of Hooper's report, it is interesting to note that he did not see a purpose for entering his suggestions into legislation; rather, they would be treated on a case by case basis, whereby any illegal forest encroachment could be treated as a violation of general law. This was primarily due to the fact that, at least in the initial phases of forest conservancy, it had not yet been realized how forest conservation could be woven into the broader political economy. Most importantly, however, is Hooper's concern for the production practices of the emergent small-scale farming class and methods for curbing land use and tenure in forest communities. Building tensions from the mistreatment of apprentices and ex-slaves to the inaccessibility of land to small-scale farmers through forest and land redistribution policies led to the Morant Bay Rebellion of 1865, "which was violently suppressed by the colonial government and brought only a few cosmetic changes and no substantive land distribution" (Weis, 2007). Hooper's policy suggestions failed to recognize the landless small-scale farmers, further exacerbating issues of the immiserate "peasant" class.

The Wimbush Report (1935)

In 1935, Wimbush, Chief Conservator of Forests in Madras, India, arrived in Jamaica at the request of the Colonial Office to "...make an investigation of the various aspects of forestry in Jamaica with a view to the formation of forest policy for the island..." (Wimbush, 1935). In the 50 years that had passed since Hooper delivered his report, the colonial government of Jamaica had done little concerning forest enforcement stemming from the 1886 report and had yet to formally establish a forestry department. However, the colonial concern over the condition of

forestry in Jamaica had only increased alongside natural resource export industries. Meanwhile, the colonial government had begun to sell and lease small plots of Crown Lands in 1895--many of which were on the forest periphery of Cockpit Country--but these spaces were far from ideal for agriculture, at least compared to the low-land plains. In effect, this and ensuing policies, while largely ineffective in terms of distributing land to small-scale farmers, only further exacerbated the paradigm of supplanting land in the hands of medium-size farmers, increasing the stratification of the small-scale farmer class (Munroe & Robotham, 1977). Yet, the colonial government continued to place pressure on the people living in forest-fringe communities. Quoting directly from the Colonial Office's letter requesting Wimbush's service: "It is desired that you should deal with the problems of de-afforestation, the protection of existing forest lands, re-afforestation, the study of windbelts and the protection of trees against north winds. It should be useful if you could make any suggestions for the planting of cedar (*Cedrela odorata*) and mahoe (*Hibiscus elatus*)," which are native to Jamaica. This last statement is particularly telling concerning the growing demand for wood used in construction in Jamaica and abroad at the time. Further, the same species are currently in high demand on the Jamaican market (Oliphant, 2003).

Wimbush paid particular attention to the work that had already been carried out 50 years prior by Hooper, and briefly reviewed Hooper's conservation suggestions as outlined above.

Wimbush paraphrased Hooper's suggestions as follows:

1. Reserve the Highlands of the Blue Mountains, arranging to escheat, acquire or obtain amicable surrender of private lands where necessary.
2. Demarcate and survey the Reserve so formed and protect it against fire, theft and trespass.

3. Retain as forest reserves all blocks of Crown Lands on the limestone formations that exceed 2,000 acres in extent. Restrict cultivation of ground provisions in them wherever possible or expedient. Protect the Reserves against the felling of valuable timbers and generally conserve them.
3. Enforce rigidly all conditions in the Cinchona leases, etc.

While these suggestions were paraphrased by Wimbush, there were certain liberties taken that certainly stand in tension with the former report. Of note, I would like to focus on the absence of Maroons in the second suggestion. While the language of Hooper's report certainly evokes racial overtones, it does, in its own convoluted way, recognize the cultural significance of Maroon forest settlements. Dating back to the colonial legacy of the large scale plantation system driven by slave labor, Maroons certainly held a certain power over the British when confronted in the forested areas, particularly in Cockpit Country (Campbell, 1988; Dallas, 2002). In this, Hooper recognized how Maroons may have been ideally positioned to take up employment as forest rangers. Further, as "negroes" and Maroons were often cited in the ongoing destruction of the forests, Wimbush may have, though I cannot be certain of the fact, thought it best to exclude the people being identified as the primary proponents of deforestation from those slated to protect it.



Figure 5: The railway and road network in Jamaica (in D. Rollinson, *Railways of the Caribbean*, 2001)

Wimbush's report provides a valuable historical review of forest use and legislation over the 50 years that had passed since Hooper's report. I will use Wimbush's work as well as supporting documents from Forestry Department of the Ministry of Agriculture to briefly review forest use and legislation during this period. Following Hooper's visit, "The Mountain and Rivers Reserve Law" was passed in 1889, followed by "The Amending Law 22 of 1892." However, the Surveyor General reported that they experienced difficulties upholding these laws. These laws were repealed by Law 14 of 1893 as upholding these laws was deemed financially impractical in that the timber in the area was not considered to have any commercial value. Further, it was deemed that the demarcation of reserves would be "very difficult and costly." To sidestep this difficulty, the Director of Public Gardens was directed to distribute trees to landowners for the purpose of reforesting "denuded" hillsides, at no cost to the landowners. In 1911, the government began to repossess lands that had been previously apportioned at the rate

of 5 pennies per acre, totaling 116² miles of Crown Land for the purposes of extending the national railway system (fig. 5). Under the railway extension law of 1889, the West India Improvement Company was granted one square mile (640 acres) of Crown land of its choice for each mile of completed railway (Satchell & Sampson, 2003). Up to 1898, the West India Improvement Company acquired 76,000 acres of Crown Land throughout various areas of Jamaica, which only worked to further exacerbate the paradigm of the landless Jamaican small-scale farming class, curbing the small-scale farmer's expansion (Satchell, 1997). In effect, Jamaica's slowly developing small-scale farming class was effectively disenfranchised from these lands for what was considered to be a "long-term economic benefit" (Satchell & Sampson, 2003). "By providing cheap, fast and dependable transport into the interior regions the railway not only opened up these areas to the cultivation of existing crops but also allowed for the diversification of the island's agrarian economy" (Satchell & Sampson, 2003). I would argue here that, while railways may have contributed to diversification of the economy, part of this diversification was reinforced through the stratification of the small-scale farming class through land and forest policies. Disregarding Hooper's report, the apportionment of Crown Lands to the railway system and the use of timber in this area points to an early tension between conservation and development. Following the apportionment of land to the railway system, "The Mountain Reserve Law" of 1913 was introduced to the Legislative Council, but was dismissed due to the exclusion of a detailed budget. Finally in 1924, the Board of Management of the Jamaica Agricultural Society "...appointed a Committee to report on the general question of the afforestation and the maintenance of soil fertility. In conclusion, the committee simply reported

that Hooper's advice, from 50 years prior, should be used to guide future legislation. The

following additional suggestions were laid out by the committee to be submitted for legislation:

1. for acquisition of lands for reservation as forests,
2. for the creation of a Forestry Board to advise the Governor on forest matters, with the Surveyor General as Chairman,
3. for the appointment of an Afforestation Committee in each parish,
4. for empowering Parochial Afforestation Committees to enforce the planting with suitable trees of the immediate banks of any rivers and streams, and the maintenance of such protective plantations as may be required to reduce damage to alluvial lands from being washed by floods,
5. for enabling Parochial Afforestation Committees to certify that any proprietor has established to their satisfaction, a "Forest Reserve" on his property, so as to entitle the said proprietor to claim a statutory reduction in the Property Tax payable by him, not exceeding 10% of the gross Property Tax leviable on the said property.

In 1929, an Inspector of Plant Disease was transferred to the Surveyor General's Office to begin inspecting the conditions of the forest and propagate and distribute seedlings for the purpose of afforestation. In addition, the inspector would be responsible for curbing forest cultivation. Following this development in 1934, The Council of Jamaica Imperial Association...

Resolved that the Jamaica Imperial Association's Annual General Meeting assembled respectfully requests the Government that, in view of the importance of a better system of afforestation being undertaken in Jamaica, consequent on the constant denudation of our hillsides which is taking place, with the result that the surface soil is constantly being washed away by heavy rains, it should approach the Colonial Office with the request that the Colonial Development Committee should send an Expert Forestry Officer to this country to study and report on the steps to be taken by the local Government for this desired improvement, the expenses of such an officer to be borne by the Colonial Development Fund.

Wimbush reported on the conditions of Jamaica's forests in 1935, whereby he presented a series of curious contradictions concerning forest denudation and land use policy. The primary contradiction concerns the dual role of the forest rangers, who, in turn, were also commissioned

as bailiffs responsible for collecting rent from tenants holding apportioned lands for the purpose of cultivation. The forest ranger cum bailiffs were expected to subsidize their salaries by claiming 10% of all rents collected. To this end, it was in the best interest of bailiffs to apportion as many plots of land as was allowable by colonial law in order to maximize their income. In this practice, we see an early contradiction of forest and land use policy, whereby individual projects had a direct impact on the conditions of the land, which stood in direct contradiction to the concern over conservation. To further exacerbate matters, The Country Fires Law of 1917 required that land occupiers create a 25 foot fire line around any area that they intended to burn while notifying neighbors of the intent to burn. This regulation was blatantly disregarded, with the 25 foot fire line rule rarely followed and no notices on record. Obviously, reporting these offenses would jeopardize the bailiffs income potential. The act was expanded in 1942 to include burning crops and garbage, but few people in Jamaica are familiar with the law (Jamaica Observer, 2005). In addition to this gross disregard of forest policy, as stated above the railway industry had virtually unrestricted access to the forest for the purpose of producing railway ties for a rapidly expanding railway system in Jamaica. Again, there is a fundamental contradiction between forest policy and resource use, whereby the colonial government turned a blind eye to the conditions of the forest in light of industrial development. However, the railway lines seemingly offered a more viable source of income generation than the forests did at the time. Further, the bailiffs clearly did not enforce forest policy outside of removing squatters from Crown Land. Of course, the squatters tended to be the landless small-scale farming class.

Concerning the Afforestation Law of 1927, it is interesting to note that various lands including The Blue Mountain and various parcels of land across the parishes of St. Mary, St.

Thomas, Portland and St. Andrew were declared forest reserves. However, as Wimbush noted, these reserves only existed on paper, a paradigm that has found its way into current times (Chenoweth et al., 2001). The government of Jamaica never made the effort to clearly establish demarcation lines or post signage to that effect. In this practice, it is essential to ask the question of what benefit these proceedings brought about. However, due to a lack of historical evidence, it is impossible to decipher if this was a product of backdoor deals, or if it was a process that simply broke down due to lack of financing. It will be critical to note, however, the historical implications in current forest policy.

Finally, it is worth noting that the timber rich lands of Cockpit Country were, as of 1935, relatively untouched with the exception of small scale cultivators and Maroon societies. To this effect, it was claimed that by the protection of “nature,” Cockpit Country had avoided deforestation due to its physical geography, biodiversity and Maroon society. That is, the canonical limestone topography is quite challenging to negotiate, making it relatively inaccessible to large scale lumber industries and other extractive industries of the time. Further, the “daylight mosquitos” acted as a formidable deterrent, as did the Maroons. With these deterrents noted, it was also revealed that the Cockpit Country contains the “most important timber forests.” Therefore, the state of Cockpit Country throughout the ages has been maintained through the forces of “nature.”

Interestingly, and in direct contradiction to the protection of nature by nature, during the 1930’s land in Cockpit Country was apportioned to ex-soldiers for the purposes of cultivation, as well as to the broader small-scale farming class in a type of resettlement plan (Stolberg, 1992). To the extent that the soldiers of the time were unaccustomed to farming in such inaccessible

areas, these allotments were then rented to “shifting cultivators,” who would move from plot to plot after soil fertility had been depleted. Of course, this process only exacerbated the paradigm of restricting the small-scale farmer’s access to land and forest resources in favor of large scale industry and wealthy landowners (Munroe & Robotham, 1977). In this case, land was being controlled by actors who had little interest in agriculture, as opposed to the use of forest resources for industrial production and the creation of rental properties. In agreement with Hooper, Wimbush claimed that it was a practice of the small-scale farming class that posed the greatest threat to the forests, as follows.

In the majority of parishes, practically all land fit for producing valuable plantation products has been cleared for cultivation, as is very natural and right. A great deal of land, however, which is much too steep for any form of permanent cultivation has been disposed of to petty settlers, either permanently or on lease, and it is these men, who practice shifting cultivation for the production of foodstuffs, that do most of the damage nowadays, though, in years gone by, it was the clearance of forest for coffee growing on the shale soils of the Blue Mountains that caused the most serious and lasting damage, by way of erosion and the rapid run-off of rain water (Wimbush, 1935).

All contradictions considered in this statement, Wimbush made a series of suggestions for entering conservation strategies into legislation. These include creating and enforcing forest reserves, creating a “comprehensive” law for the purposes of enforcing forest regulations, and a staff of government officials for enforcing these laws. Of major concerns were safeguarding the forests that exist on Crown Lands, curbing the unregulated harvesting of immature trees--presumably used for yam sticks, and retaining the firewood forests for just that purpose. What was quite curious is that Wimbush essentially gave the same report as Hooper--barring racialized language--in that his ultimate suggestions are to “reserve, demarcate, survey and protect against

fire, theft and trespass.” Essentially, this reveals the development of a discourse of forest protection, which, as shall be further elucidated in the ensuing pages of this chapter and this dissertation more broadly, works to further marginalize the immiserate, landless small-scale farming class.

The Swabey Report (1945)

The Swabey Report (1945), the third and final report by the Conservator of Forests under the Colonial government, covers several aspects already reported in the former reports. It was produced after the formal Forest Act of 1937 and the establishment of the Forestry Department in the same year. In the interest of efficiency, I will report only on new inclusions. To begin, I will quote directly from the beginning of the report to give the reader a sense of where the “forestry problems” of Jamaica lay at the time. “Jamaica had for many decades an unenviable reputation in its attitude towards forestry problems. The attitude has recently undergone a most encouraging change, and the introduction of proper forest management, initiated by the local government in 1937, has been further encouraged by a substantial imperial grant in 1942” (Swabey, 1945). As is quite clear in this statement, Jamaica’s “attitude” toward “forest problems” was not necessarily an attitude of Jamaica, but one of the colonial government. This is perfectly clear from the land resettlement policies of the 1930’s (Stolberg, 1992) as well as broader development policies, e.g. railroad expansion (c.f. Satchell & Sampson, 2003). It is fairly clear that, when faced with depleting resources, the colonial government expressed concern through their calls for reports and surveys. However, few attempts were made at legislation and formal enforcement. In fact, as elucidated in my analysis of the Hooper and

Wimbush reports, forest legislation during the 59 years between the Hooper and Swabey reports was wrought with contradictions, e.g. the Forest Officer cum bailiff paradigm. Further, Swabey acknowledged the effects of the first and second World Wars, whereby the Crown did not have the resources to deal with forest conservation, which was deemed a relatively unimportant issue at the time.

The predominant reason stated for conserving the forests in the current report claim that receding vegetation makes it difficult to control water resources, which leads to landslides, soil erosion, and flooding. The resources to be protected included agricultural resources for the maintenance of a local food sources, forest resources for firewood and timber, water resources for all stated, mineral resources for future mining endeavors, scenic and recreational resources, and wildlife resources. Of the cited resources, I would like to draw particular attention to mineral, scenic and recreational, and wildlife resources. As noted earlier in this thesis, bauxite had been discovered in the soil, and while its monetary significance was not recognized at the time, it was noted that it should be preserved for future development. This set of terms may confuse the reader in that they do seem to raise a fundamental contradiction, in that preservation and development are two fundamentally contradictory processes. Another noteworthy aspect is the scenic and recreational, which was linked to the development of tourism. Swabey states that the development of “...utilitarian resources need not result in the destruction of Jamaica’s natural scenic beauty with which it is so richly endowed.” Clearly the utilitarian resources are agriculture, forest, water and minerals such as bauxite. However, what is completely neglected here is that all of these resources, at least in the Jamaican context, are inextricably linked. To this end, Swabey suggested the establishment of national parks, protection of historic monuments,

“control of unsightly advertising and development in scheduled scenic areas,” and the development of trails and lodging in the mountainous areas, presumably the Blue Mountains. This may be treated as an early introduction to the ecotourism paradigm now becoming so popular in the global south. Finally, the call for the protection of wildlife is also an interesting statement. Swabey notes the high level of endemism and the economic value of several of the endemic species of flora and fauna, that would be ideal for scientific research and sport. However, in the following sentence, he claims a rapidly dwindling number of species due to deforestation, water pollution, unsustainable fishing methods, excessive shooting and trapping, invasive species, and catapulting small birds. While it was firmly established that these resources could be used in the supply of a tourist industry, it is clearly marked that these resources should not be used to support the local population. Critical to note here is that Jamaica, at this point, was deeply rooted in the “classic plantation economy,” with few export products and high import dependency (Weis, 2007). Therefore, Swabey’s suggestions in design would only further alienate the Jamaican small-scale farming class from the goods that they produce, developing a deeper dependency on imported goods, also a paradigm that is firmly rooted in the current political economy of Jamaica (Weis, 2004).

Swabey described three categories of forest lands: Forest Reserves, Parochial Reserves and Private Woodlands. To begin with, Swabey stated that, “...land capable of agricultural, industrial or residential development should not be included in forest reserves. Therefore, any land, no matter how remote, containing valuable timber, minerals or the like would automatically be excluded from the Forest Reserve category. To give meaning in the current context, at the time, the Cockpit Country was not considered to be of any value from agricultural and industrial

perspectives, and therefore was deemed a Forest Reserve. Further, it was suggested that the government purchase, as well as lease with intent to purchase, private lands for the purpose of protection and timber production.

Parochial Reserves--areas marked for the protection of water supplies, e.g. rivers--were established as a method of controlling and protecting water resources. Areas smaller than 5 acres were to be acquired by local authorities, while larger areas would be acquired by the government of Jamaica (GOJ). Areas under 50 acres would be controlled by local authorities with advice from the Forestry Department, and those of 50 acres or more would be controlled directly by the Forestry Department. Regarding private lands, it was suggested that landowners who participate in protecting and reestablishing forestry on their lands should be privy to free reforestation supplies, state subsidy and assistance, and land tax remission. These practices clearly exemplify the unevenness of land tenure in Jamaica, whereby those that were fortunate enough to claim land holding frequently received state subsidies and assistance. In contrast, the land poor small-scale farmers were given no assistance at all. The objective of acquiring private lands was a clear attempt to regain control over lands that were utilized by the small-scale farming class in agricultural production, either through squatting, rent or ownership. This left small-scale farmers with two options--offer themselves as wage laborers in the plantation economy or find their own land holdings in Jamaica's rugged interior (Beckford, 1972; Weis, 2006). Interestingly, Jamaica's forest and land resettlement policies greatly contributed to the individualization of the small-scale farming class. In the review of the Hooper report I referred to the cooperative nature of small-scale farming systems that developed in the absence of support from the colonial government. Yet with the land redistribution and forestry policies that were set into place from

emancipation in 1834, the increasing stratification of the small-scale farming class ultimately lead to a deep seated suspicion in the peasantry concerning government motives and property rights--where property rights were instrumentally linked to the notion of freedom and sovereignty (Weis, 2007).

In sum, Swabey suggests that the forests of Jamaica should be put under as much government control as possible--further alienating the small-scale farming class--for the purpose of timber production and watershed protection. Several references were made to the useless flora throughout the forests--the majority of the wooded lands did not contain trees typically used in production. While many of the forests had been ravaged by the increasing demand for timber during World War II, it was deemed necessary to begin an intense process of reforestation for the purposes of timber production. To achieve this, it was suggested that boundaries should be surveyed, established, clearly marked and maintained by "periodical clearing." Further, it was established that the Forestry Department would take the lead role in forest protection; that is, they were charged with curbing illegal logging, squatting, fire, and encroachment. The areas would also be subject to timber surveys, yield control, and silviculture. Consider the following quote from the Swabey report:

It is the first duty of the Department to improve those areas at the present completely unproductive, that is, areas of grass, fern and worthless rinate. This involves afforestation, or the artificial establishment of economic timber trees: the main objective is to produce bulk crops of timber in the shortest possible time: the species selected should be (amongst other characteristics) of a wide range of utility, reasonably rapid in growth, and immune to epidemic, pests and diseases.

The language in this statement, as well as in the Hooper and Wimbush reports, clearly marks forest resources for use by the government in timber production, while laying much of the blame

concerning the state of the forests on the small-scale farmer through unsustainable farming practices. At the time this report was produced in 1945, it was recognized that Jamaica was highly dependent on imported food products and building materials (Swabey, 1945), yet a consideration of food security concerning the small-scale farming class was clearly disregarded in lieu of the extension of timber production in Jamaica.

Aside from the lack of its formal establishment in Jamaica's national forest policies, Swabey's report is considered to be Jamaica's first formal policy statement (FAO, 1998). This policy statement made three fundamental suggestions as follows:

- The establishment of forest reserves under public ownership and their management in the basis of conservation and development for multiple use (protective, productive, scenic, recreational and wildlife).
- The encouragement of sound forest management on private lands.
- The development and use of native timbers and other forest products to provide the highest possible proportion of the island's requirements.

As a result, relatively few changes were made to the Forestry Act of 1937 since it was first put into legislation. However, heads of the forestry organization have intermittently added clauses to reflect their changing strategies in enforcing the Act of 1937 with Swabey's guidelines. For example, in the 1960's, the Forestry Department had access to financial resources for reforestation. Therefore, policy statements were updated to include the department's role in providing job opportunities in rural areas (FAO, 1998). As a final example, this was yet another scheme--intended or unintended--for crushing the small-scale farming class in favor of a rural proletariat.

1945-1996 Policy Statements

Following the Swabey report, documentation approving the suggested policies was never produced, but it has been suggested that successive governments accepted and followed Swabey's suggestions (Forestry Department, 2001), though they were never established in a formal act. However, the 1937 Act and informal policy statement stemming from Swabey's work remained relatively unchanged. Aside from occasional updates to the Act of 1937, there is a lack of policy documents that deal directly with forestry issues. In 1951, the Land Authority Act was passed, which granted the Minister the ability to declare improvement areas and establish a Land Authority for those areas. Land Authorities have the power to organize "proper" use of all lands and assist private enterprises in the development of these resources, e.g. pine plantations. However, the burgeoning bauxite industry took hold in the 1950's, stripping small-scale farmers of their land holdings per the 1947 Mining and Minerals (Vesting) Act. Simultaneously, these industries widened the middle class while moving the country's labor force away from agriculture in favor of bauxite and tourism (Weis, 2007).

The Watershed Protection Act was passed in 1963, which essentially granted the Water Protection Commission authority to promote the conservation of water resources, which would supersede any other acts that the government had put into place (FAO, 1989), including the Mining and Minerals (Vesting) Act. In 1978 the Forestry Department and the Department of Soil Conservation were merged to form the Department of Forestry and Soil Conservation. In the same year, the Forest Industries Development Company was mandated to develop pine plantations on Crown Lands. Of course, this was during the Manley administration, where through Manley's socialist project, the government wished to re-centralize the economy on

agriculture, offering support for the small-scale farming class through radical land resettlement plans and increased regulations on the foreign dominated bauxite export and tourism industries. However, these plans were inevitably rejected in favor of IMF support (Weis, 2007).

In 1984, the FAO worked with the GoJ in the preparation of policy statements concerning forestry and soil conservation. These policies stated that forestry and soil conservation should be enacted in Jamaica if the remaining natural resources were to be managed and conserved for the national benefit (National Forestry Plan - Jamaica, 2001). While these policy statements were approved by the Forest Development Committee, they were never put into practice (National Forestry Plan - Jamaica, 2001), presumably due to the economic circumstances of the 1980's. In 1989, the GoJ with the assistance of consultants from the FAO produced a National Forestry Action Plan (NFAP), which ultimately reproduced the colonial language of forestry, laying blame on the rural populace for Jamaica's receding forests. While it was acknowledged that small-scale rural farmers, who again typically farm on one to two acre plots, represent 75% of the farming population and supply 75% of Jamaica's domestic food crops (Jamaica - Agricultural Census, 1996), it was stated that, "they are squeezed between the large farms on the coastal flats or valley bottoms and the forest in the upper watersheds. Since they can only move upwards and are seeking ways to increase their farm income they put much pressure on the forests" (NFAP, 1989). At the same time, it was also acknowledged that of the 140,000 small-scale farmers on the island, roughly half of these could not produce a title to their lands. This being the most comprehensive forestry document produced since the Swabey Report, it did make suggestions for improving the state of the forests through agroforestry projects. However, as indicated in the

report, it was acknowledged that there may be little incentive for small-scale, titleless farmers to participate in programs that do not have a direct economic benefit (NFAP, 1989).

The Forestry Department of the Ministry of Agriculture

As the 1937 Act and all of the policies it was connected with were difficult to enforce, the act was repealed in 1996 to reestablish the Forestry Department's role concerning forest policy and enforcement. The department is currently a division of the Ministry of Agriculture, and serves to oversee and administer forest policy. The Forest Act of 1996 provides a summary of the Forestry Department's responsibilities, which I will briefly review here.

The main functions of the department are as follows: to conserve and sustainably manage forests in Crown Lands, direct and control the use of forest resources, prepare and implement forest management and conservation plans, and promote the development of forestry on private lands. In addition to these responsibilities, they are to establish and maintain forest research programs that enhance management and development; integrate silviculture strategies to improve "financial yields of species important to the national economy;" ensure reforestation where appropriate; establish education programs that promote an understanding of the importance of forests to the national interest; establish and maintain recreation areas; establish and promote agroforestry and social forestry programs, demarcate and maintain forest boundaries; "control and supervision of the cutting, harvesting, milling, and sale of timber and other forest produce;" grant licenses under the Forest Act of 1996; monitor and document timber use; and protect and preserve watersheds.

In 2010, the Forestry Department was officially established as an executive agency, which gives the department more autonomy concerning enforcement of forest legislation. With this move to reestablish the Forestry Department after a series of layoffs in the 1990's into the new millennium, the department is also responsible for generating some of its own funding streams as they shifted to a "performance" based agency, focusing on services rather than revenue generation (Oliphant, 2011). However, the generation of revenue is imperative to the maintenance of the department, making necessary the commodification of their services and the Crown Lands under their jurisdiction more broadly.

The Forest Act of 1996 and the Legal Establishment of Local Forestry Management Committees

In 1996, the Forest Act of 1937 was repealed with legislation that shifted many of the responsibilities of the Forestry Department and their overall objectives. Of particular interest is call for participation of local people in the national forest legislation. The primary purpose of . . . is to integrate people living in and around the areas of concern into the fold of the Forestry Department's initiatives. The Forest Act of 1996 called for the appointment of Local Forestry Management Committees, which were designed to include people in forest-fringe communities to assist in management of forested areas, monitoring the condition of the forests, to participate in public meetings regarding natural resource use, advise the Conservator of Forests in the development of forest management plans and regulations, propose incentives for conservation in forest-fringe communities, and assist in the design and execution of conservation projects. Of course, these policies do not include plans for promoting forestry conservation in the context of marginalized groups that depend on these resources for their survival. As such, it would seem

that the act essentially calls for people in forest-fringe communities to “participate” in a process that would further jeopardize their food security and everyday lives by alienating them from these resources in very much the same way past forest and broader land use policies have.

Following from the influential Agenda 21 that came directly out of the 1992 Rio Earth Summit, the GOJ, and the Forestry Department for that matter, decided to include the call for community participation in national legislation. However, the interest of sustainable development was not the only agenda on the Forestry Department’s plan; the inclusion of local people not only provided community perspectives on forestry, but proposed a voluntary force of forest guards--a free source of forest monitoring. This process is quite reminiscent of Hooper’s suggestion from 1886, whereby he suggested that Maroons should be employed in the forest conservation paradigm. It is a clear pattern of calling for public participation in forest conservation, where the government struggles to find the financial resources to preserve what is considered to be part of the nation’s economic future, yet seeks to both disenfranchise the small-scale farming class from those resources while benefitting from their volunteer efforts in the process.

Current Environmental Issues in Cockpit Country

While many of the social and environmental issues that Jamaica is faced with have been identified in the historical documents that I reviewed in prior sections, I will provide a brief overview of the current state of the forests in Jamaica and identify the practices that have led to those conditions. As relatively few comprehensive, peer-reviewed studies of forest cover in

Jamaica have been produced in the last century, I will rely heavily on reports produced by the FDJ and supplement these reports with peer-reviewed articles.

In the historical context, the predominant causes of deforestation were agricultural production and logging. As such, these practices, quite paradoxically, were borne directly from colonial policies that pointed to the forested areas to be developed for agricultural production as well as a source of fuel and production materials, e.g. timber for the railroad industry. The small-scale farming practices of the colonial era have endured the last century, forming the backbone of the rural economy (Mintz, 1985). The FDJ and groups of conservationists and academics became increasingly concerned with these practices, particularly in the context of Cockpit Country (Eyre, 1989). Much of this concern stemmed directly from the increasing production of yam with respect to the growing population of Jamaica, particularly during peak production in 1994 (Beckford, 2009). The yam stick problem raises two issues. To begin, food scarcity is a major concern for Jamaica's highly import dependent economy. In this context the academic community is seeking methods for increasing agricultural production while curbing the use of forest timber products (Beckford, Campbell, and Barker, 2011). On the side of the FDJ, there is a concern for the deforestation rate and use of FDJ sanctioned timber products (Forestry Act, 1994).

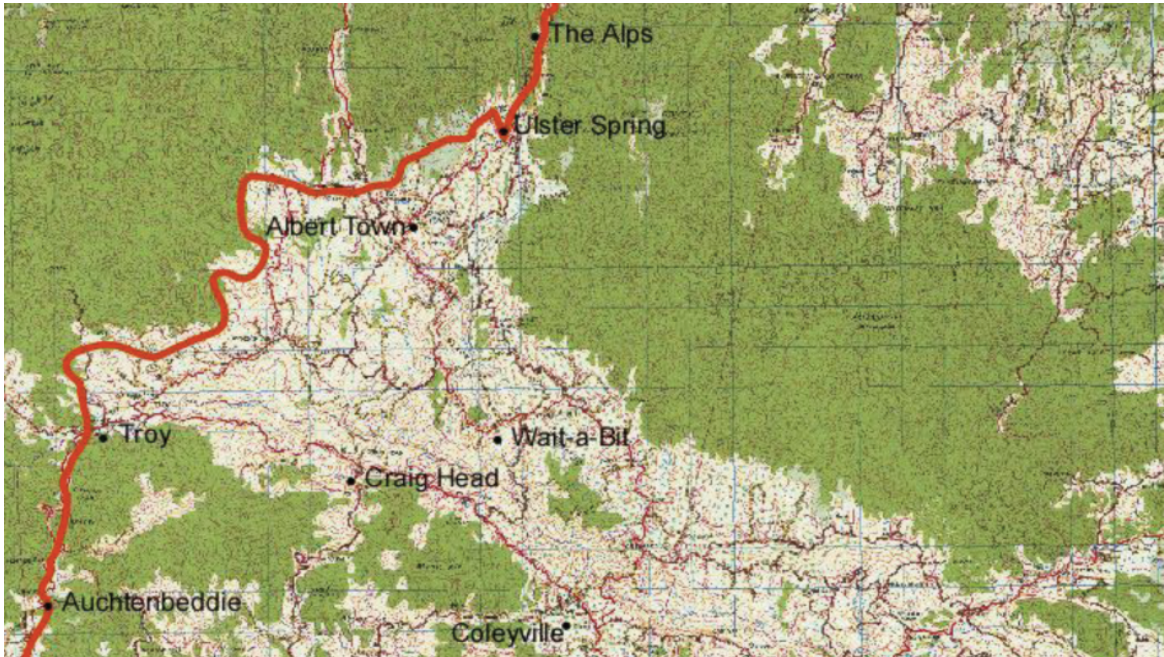


Figure 6: Top Trelawny and surrounding areas (Adapted from Mitchell et al., 2008).

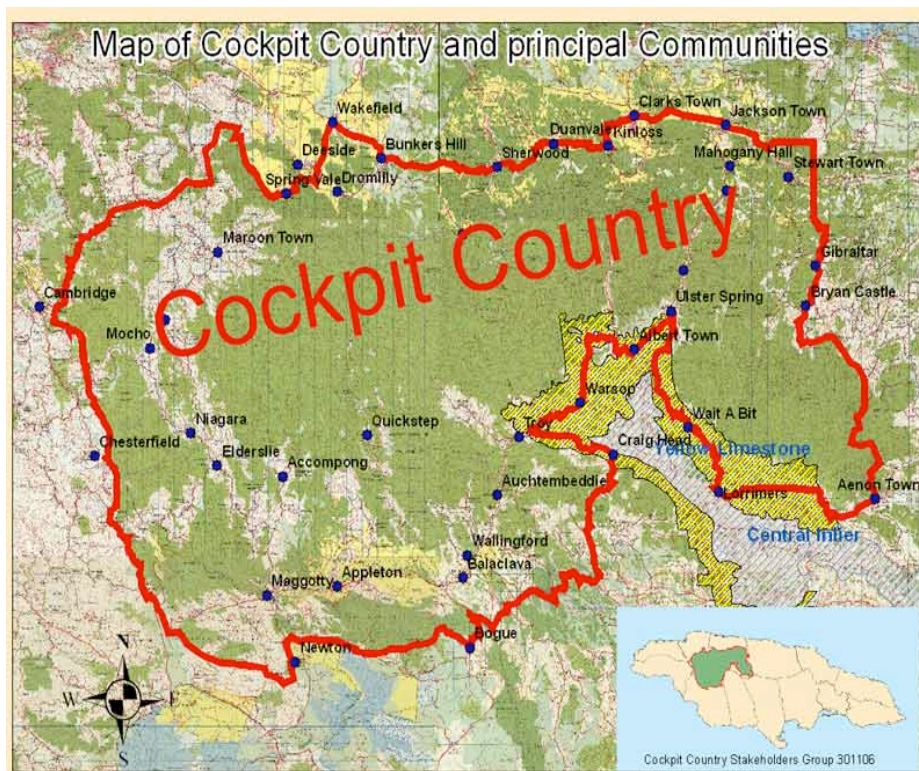


Figure 7: Proposed Cockpit Country buffer zone (The Forestry Department of the Ministry of Agriculture of Jamaica, 2007).

The majority of Jamaica's yam production takes place in Top Trelawny (fig. 6), which is located inside the proposed Cockpit Country buffer zone (fig. 7). It is estimated that between 43 and 60 million yam sticks are harvested annually, many of which are harvested from the "ecologically sensitive" Cockpit Country (Beckford, 2009; Beckford, Campbell, and Barker, 2011). Yam sticks are tree saplings, typically 2" in diameter and 6' to 8' tall; a yam stick is posted into each hill of yam so that the plant's vines may climb for increased exposure to the sun. Also of increasing concern is the clearing of steep hillsides for the purposes of agricultural production (Barker & Miller, 1995), both legal and illegal. This issue seems to focus on squatters illegally clearing forested Crown Lands for agricultural production (Geoghegan & Bennett, 2003; TNC, 2007; Tole, 2006; USAID, 2009). These practices increasingly fragment the forested areas, which reduces the ranging characteristics of several species of animals and their ability to survive in the forest (Koenig, 2001; Newman, McLaren, & Wilson, 2010). This, in turn, limits the possibility of studying the unique species, of which several remain undiscovered (Crombie, 1986). What is markedly absent here is the fact that people also depend on the forest.

Another concern is the use of forest timber for the production of coal and Fuelwood (FDJ-NFMP, 2001; TNC, 2007), though this is becoming less of an issue as several Cockpit Country residents have turned to using cooking gas. Further, coal production is a time consuming and potentially dangerous process that is only practiced by a relative minority in Cockpit Country. However, the concern for the use of fuelwood is ever present. It has been estimated that monthly wood consumption in Jamaica is approximately 1050 tons. Wood is

extensively used in the sugar and construction industries, as well as for cooking fuel in some rural homes (FDJ-NFMP, 2001). Particularly in the rural forest community context, this is of particular concern for FDJ, as they do not have the human resources to curb illegal logging and harvesting tree saplings for use in agricultural production. In turn, these practices stand in tension with FDJs afforestation initiatives (FDJ-NFMP, 2001).

Finally, one of the predominant issues concerning forested areas in Jamaica includes mineral extraction. As Jamaica entered the era of independence in 1962, new industries and technologies had developed, which pointed to the further exploitation of Jamaica's human and natural resources. Of particular note is the bauxite industry, which relied heavily on forest resources as a source of development materials, e.g. fuelwood. Prior to the licensing of prospecting grants for Cockpit Country in 2004, conservationists expressed a concern for the effects of mining in the karstlands peripheral to Cockpit Country, which, alongside agriculture and infrastructural development in the form of roadways, "would be a serious adverse impact of the creation of a national park and the subsequent ingress of visitors" (Chenoweth, 2001), in which several organizations would have a "stake." Following the issuing of prospecting leases, the conservation and scientific community increased their efforts in the area to claim a stake in its preservation. However, with respect to the relationship between forest fragmentation and cultural agricultural practices, it has been found that forest fragmentation, barring the periphery, has changed little in the last 30 years (Evelyn & Camirand, 2003; Newman, McLaren, & Wilson, 2010). As the dense forest affords refuge for several faunal species of interest to the scientific community, as well as a source of food and fuel in forest fringe communities, it has been

suggested that, “minimizing and controlling access” will be critical to maintaining the forestry and biodiversity of Cockpit Country (Newman, McLaren, & Wilson, 2010).

Chapter Summary

In this chapter, I have reviewed the history of forest legislation and use from 1886 to current times. The forestry issues of Jamaica were recognized quite early in the country’s colonial history, as this small country’s natural resources were rapidly consumed by the large-scale colonial plantation system; forested lands were cleared in the low-land plains to make way for large plantations, while timber products and forest resources from the more central parts of the country were used in infrastructural development, e.g. the railroad industry. The inland areas were also used in small-scale farmer resettlement plans, where those that were disenfranchised from their lands by bauxite, agriculture, or otherwise were offered land in the country’s rugged interior—these hilly places were considered to be less conducive to large-scale agriculture than the low-land plains. As such, farmers in the area have developed farming systems that allow them to cultivate on steep sided hills, providing a space for subsistence and more.

Through an analysis of the aforementioned policy documents, it is clear that the majority of the blame for deforestation in Jamaica was placed on the “negro population.” Yet, the colonial devastation of the forests of Jamaica for agricultural purposes, in the words of Wimbush (1935), was considered to be “natural and right.” Meanwhile, small-scale farming practices were considered to be detrimental to the future health of the forested areas. As such, a long history of forest legislation and attitudes toward the small-scale farming class yielded increasing efforts by Jamaica’s colonial and post-independence governments to restrict small-scale farmer access to

land and, particularly in the context of Cockpit Country, forest resources. This issue became particularly pervasive in the late 19th and early 20th centuries, at which time the colonial government had granted 76,000 acres of forested lands to the West India Improvement Company to support their railway development projects.

The policy documents quite clearly reveal that the forests of Jamaica were to be restricted from those that needed them most for everyday survival, a group that may have had the least environmental impact on the forests of Jamaica, at least compared to large-scale industries, such as the railroad industry. However, this notion is solidified in the final colonial forest officer's report, conducted by Swabey in 1945, whereby it was stated that the forests of Jamaica should be protected for all previously stated reasons; yet, very interestingly, this document added the tourism paradigm. In this treatment, it would seem that access to forest resources would be restricted from those that had been pushed into the areas of concern, while its borders would be opened to foreign nationals. As such, the forested areas were ultimately designated for timber production, land resettlement, mineral extraction and tourism.

These policy views have remained relatively intact into current times. The colonial adage concerning the nexus of deforestation and “negro cultivation” is pervasive in the latest policy documents, but with the addition of a colonial legacy—recall the Hooper report, whereby it was advised that enlisting groups of Maroons as forest guards would be beneficial in the process of forest conservation. As such, the 1996 Forestry Act, in line with calls for community participation stemming from the 1992 Rio Earth Summit, provided a basis for harvesting community participation in the protection of the natural resources of Jamaica. While the current state of the forests may be in question, the calls for community participation in forest

conservation, given the mutual benefit of all actors, is a seemingly attractive route to conservation and poverty alleviation. This paradigm will be further unpacked in the following chapters.

Chapter 4: People, Nature, and Cockpit Country

In the exploration of people's experiential and affective affiliation with nature it is critical to document their everyday routines as a fundamental unit of analysis. Pairing an analysis of people's behavior grounded in their social context with measures that take the individual as a unit of analysis works to provide a more holistic picture of people's attitudes toward and connection to nature. Considering the words of David Harvey (1996), it is critical to compare what people say with what they do. As such, this chapter will detail the everyday routines and environmental actions of the people that I worked with in and around Cockpit Country. With the professionals from The Nature Conservancy (TNC), The Forestry Department of the Ministry of Agriculture (FDJ), USAID, and other organizations that worked with the Cockpit Country Local Forestry Management Committees (CCLFMC)--groups of people who tended to live outside of Cockpit Country--I documented their interactions when working in Cockpit Country. However, the majority (N=64) of the people that I worked with did, in fact, live in the rural communities of Cockpit Country. Living and working alongside the people there for five months allowed me to document their everyday routines and develop insights into the types of environmental practices in the area.

To begin, I will provide a description the predominant agricultural and other environmental practices of the people living in Cockpit Country, followed by an analysis of people's connectedness to nature based on Mayer and Frantz's Connectedness to Nature survey (2004). The survey works to understand how emotional and experiential variables factor into fostering a connection with nature. I will also ground my observations and interview data in Kellert's typology of attitudes toward wildlife (2002). In prior research, we have shown that

Kellert's typology can be applied to qualitative data effectively (Douglas & Katz, 2009). To build on the theoretical principle that emotional and experiential variables, as well as people's attitudes toward wildlife provide a reliable indicator of environmental behavior, I will describe the everyday practices and trades of the rural inhabitants, which took place predominantly in various forms of farming and household activities, as well as a variety of trades practiced throughout the region. Further, I will pair narrative feedback from my research participants with the quantitative and observational data. Based on the data discussed in the preceding sections, I will enter into an analysis of the nuanced ways in which people participating in the LFMCS, as well as people who live in Cockpit Country but do not participate in these groups, value nature. This analysis will present various value representations, from intrinsic to instrumental values (cf. Harvey, 1996). To briefly illustrate, intrinsic and instrumental values may be attributed to the same materials, e.g., trees, yet intrinsic values represent how people think and feel about trees in their lives, while instrumental values place a market value on trees.

Out of the 64 community residents that I interviewed and whose daily lives I observed intimately, 48 people were directly involved in agriculture. However, it should be noted that all of the Cockpit Country residents that I interviewed benefitted from local agriculture in some form. For example, the 16 people who did not directly participate in agricultural practices all lived in households that, to some extent, relied on subsistence agriculture. Therefore, all of the people I spoke with relied on local agriculture as a significant form of food security. The vast majority of this group practiced subsistence farming, as commercial farming in central Jamaica has not seen significant export markets since the 1990s (Weis, 2004). With the exception of locating arable land that is financially viable, farming is a practice that is relatively accessible

and does not necessarily require a significant initial monetary investment. It is a practice that supports those who were engaged in large scale agriculture up to its collapse in the 1990s, at which point many people were faced with the choice of selling their labor power to wealthy landowners or maintaining small plots of land to grow provisions for their families. For many, farming serves as a method for ensuring food security when work cannot be found elsewhere. Considering the precarious history of slavery and subsequent practices of labor exploitation, the notion of subsistence became one of freedom and associated with sovereignty, where living directly from the land gained a certain air of respectability (Beckford, Barker & Bailey, 2007), particularly in Jamaica's rugged interior (Weis, 2006).

Forest life is integrally tied to agricultural production in Cockpit Country. During the agricultural boom of the 1970s and early 1980s, people who could not afford to expand their small land holdings frequently opted to plant inside the forests, where all of my participants indicated the most fertile soils were located. The wealthier landowners tended to occupy the vast majority of "bush"—land cleared for agriculture on the forest periphery—which was financially inaccessible to small farmers. In line with current times and practice in Cockpit Country, selling one's labor power was considered to carry less prestige than working for oneself (Beckford, Barker & Bailey, 2007), and many of my participants offered narratives from their childhoods where they would, with great joy, describe their explorations of the forest while their parents spent days on end harvesting produce from deep inside the forest. As indicated in my literature review, forest cultivation has long been a means of separating oneself from the necessity of becoming a wage laborer. In effect the forest provided a space of sovereignty outside of the plantation and post-emancipation economies during the colonial period and after. To this day the

forest affords a sense of freedom and sovereignty to many people of Cockpit Country, from Maroons who carved out spaces for their numerous communities to develop and thrive (Kopytoff, 1979), to the individual farmers who sought means to support their families. Consider the following quote, which represents a pervasive theme among the agriculturalists of Cockpit Country:

Jason: What do you do for work?

SW: Me have a skill too you know. Me can do construction, can do furniture, can do carpentry, yeah. But me nuh really like work for people so me farm instead of... me farm like, plant two acre and make a chain you see. Me nuh too work fi people. Full up my own ting.

Jason: Why don't you like to work for other people?

SW: [excitedly] Uh, nine to five thing. You do work fi me you do. My mudda sent me a school and me qualify. Some man wan fi come a give wha him feel like. You know me tek that, see it and you stay this black conscious. Me nuh slave masta some a dem gwaan with. So me nuh chain dat. And it's like a war call, we ca'an tek dat to come home to me likkle brudda call. That's why me nuh really have nuh girl because me ca'an maintain that. See it, so my likkle bredda me just deal wit. Yeah, and sista dem. A likkle change fi dem, me can get dat.

This perspective is clearly and deeply rooted in the legacy of slavery. Yet, the memory of this history remains firmly in the minds of many in the rural communities of Cockpit Country. I have introduced this narrative early in the text to prime the reader to several issues that will become apparent; however, one of the main issues that the participant spoke of was education. This is of fundamental importance to Jamaicans as access to education is strongly linked to race and class. This issue presents considerable challenges to ICDPs in Jamaica, as they bring together people of various educational levels, as-well-as races and classes. This issue will be addressed in further detail in chapter 5.

In the current context, there are a variety of trades practiced by the people of Cockpit Country, from well established agricultural practices to producing goods from forest resources, e.g. furniture and construction materials. To describe some of these practices, I will begin with a description of people's agricultural and broader environmental practices in Cockpit Country. As described in the introduction, my research took place in three locations, which followed the design of the LFMC program being established in three strategic locations in the Cockpit Country forest periphery. These areas include Albert Town and surrounding areas in Top Trelawny, Bunkers Hill and surrounding areas in Trelawny, and Flagstaff and surrounding areas in St. James.

Environment and Behavior

Bunkers Hill - Agricultural and Environmental Practices

The town of Bunkers Hill is located 7.5 miles outside of Falmouth (fig. 8), the coastal capital of Trelawny. It is in the Martha Brae watershed region, which is a vital water source for the majority of the parish of Trelawny. As the main market place for goods produced in the surrounding townships, Falmouth provides a convenient location for agricultural distribution, as well as a convenient port city for the launching point of ecotourism ventures. Agricultural production in Bunkers Hill is based on a diverse set of agricultural outputs. These include several varieties of fruits and vegetables (see table 1 for some examples). While table 2 does not include an exhaustive list of ground provisions produced in Jamaica, they are the ones most commonly produced in Bunkers Hill, Flagstaff, Albert Town, and surrounding areas. There are, though to a lesser degree, a number of people that practice animal husbandry, which includes

pigs, goats, cattle, and chickens. Cattle, which are more capital intensive than other forms of livestock, are reared to a much lesser degree than pigs, goats and chickens. In Bunkers Hill, there aren't any people who raise cattle—though this was more common in the 1970s and 1980s—but there are still some cattle farms in the neighboring districts of Unity and Drommely.



Figure 8: Bunkers Hill and surrounding areas (Adapted from Mitchell et al., 2008).

With extensive conical limestone topography throughout Cockpit Country, hillside farming is practiced to some extent in Bunkers Hill, and hillside farming was a predominant concern in the LFMC. With a lack of irrigation infrastructure, both hillside and flatland farming are largely dependent on rainfall. There are some advantages to hillside farming, as water runoff is facilitated by steep sided slopes. However, this process of farming also contributes to soil erosion. In the context of Bunkers Hill, with an elevation of 127 m above sea level, the vast majority of farming takes place in the flatter lands on 1 to 2 acre plots. As Bunkers Hill is located on lowland areas of the forest periphery, where hillside farming is not as common as in other areas of Trelawny and St. James that are found in higher elevations. Crop rotation is typically practiced due to seasonal weather conditions and limited land, whereby cash crops (various fast growing vegetables) are only planted in the dry season, as many varieties of

Vegetables	Binomial Name	Fruits	Binomial Name
White yam	<i>Dioscorea rotundata</i>	Ackee	<i>Blighia sapida</i>
Negro yam	<i>Dioscorea sativa</i>	Otaheite apples	<i>Syzygium malaccense</i>
Yellow yam	<i>Dioscorea cayenensis</i>	Pear/Avocado	<i>Persea americana</i>
Dasheen	<i>Colocasia esculenta</i>	Mango	<i>Mangifera indica</i>
Sweet potato	<i>Ipomoea batatas</i>	Bread fruit	<i>Artocarpus altilis</i>
Pumpkin	<i>Cucurbita moschata</i>	Banana	<i>Musa acuminata</i> × <i>balbisiana</i>
Corn	<i>Zea mays</i>	Red Banana	<i>Musa acuminata</i>
Cassava	<i>Manihot esculenta</i>	Cocoa	<i>Theobroma cacao</i>
Tomatoes	<i>Solanum lycopersicum</i>	Hog plum	<i>Spondias Monbin</i>
Cabbage	<i>Brassica oleracea</i>	Guava	<i>Psidium guajava</i>
Scotch Bonnet Peppers	<i>Capsicum chinense</i>	Guinep	<i>Melicoccus bijugatus</i>
		Jackfruit	<i>Artocarpus heterophyllus</i>
		June Plum	<i>Spondias dulcis</i>
		Naseberry	<i>Manilkara zapota</i>
		Papaya	<i>Carica papaya</i>
		Sorrel	<i>Rumex acetosa</i>
		Soursop	<i>Annona Muricata</i>
		Star apple	<i>Chrysophyllum cainito</i>

Table 2: A sample of fruits and vegetables produced in Cockpit Country.

vegetables do not thrive in the heavy downpours of the rainy season, particularly on the flatlands. In this respect, the concern for soil erosion would seem to have less significance in the area, but it was one of the top concerns of the LFMC.

The LFMC also discouraged the use of fertilizer, promoting more sustainable practices such as mulching grass clippings and composting. While only one of my research participants had attempted to use these techniques, several of the people I interviewed and observed used guano (Bat dung), which is rich in phosphates and nitrates that promote plant growth (Storer, 1926; Bernath, 1981). In addition to fertilizing soil, guano also helps to protect plants against fungal infection and nematodes, although scientists and environmentalists in the LFMC program discouraged its use. As caves throughout Cockpit Country attracted ecotourists, and with several caves in the Bunkers Hill area slated for ecotourism development, NGOs and activists were concerned that guano harvesting would disturb the cave ecosystems, which were vital in the production of the ecotourism economy. A contradictory note seems to carry over from these two types of cave incursions. However, the use of caves, at least for the people of Bunkers Hill, was far more meaningful than guano harvesting or ecotourism, in that caves, for many, serve as a space and place of worship, among other practices, as will be described in the following section.

Bunkers Hill - An Exploration of Nature

Throughout my stay in Bunkers Hill, the western notion of a nature walk was a daily activity in which I participated with several residents. Even a brief roadside conversation would often turn into an invitation to visit people's farms and areas of Bunkers Hill for which they had a special appreciation. In this section of the chapter, I will describe the production of nature as

experienced by a range of people in Bunkers Hill. Through an ethnographic exploration, I had the opportunity to work with people side-by-side on their farms, participate in LFMC based activities, and accompany people throughout their daily routines. While I will pay particular attention to several individuals, their practices and experiences are widely representative of the people in the area.

On one of these occasions, I was invited to explore some of the local caves with a resident whom I will call James, who collects guano for fertilizer. James was born in Hamdon, St. James, and moved to Bunkers Hill, Trelawny, when he was 8 years old. James practices Rastafarianism and frequently talks about the wonders of nature and the benefits of ita (a rastafarian diet based on vegetables and fish) without any prompt. He provides a livelihood for his wife and two children through subsistence farming, while selling any extra produce to bring in a small income. James briefly worked in Montego Bay as a chef, but he soon found that the cost of the 90 minute commute at 250J (\$2.88) each way commanded a significant portion of his 3000J (\$34.60) weekly salary, leaving little money to provide for his family. He found that through farming he was able to provide the food that they needed to survive while also staying closer to his family and developing an appreciation for agriculture. During one of our many discussions, James said, “right now me eat better, but financial-wise me nuh come in now, just work at the chef and get the money. It don’t come in that way, but personally me feed more better, eat more better.” While James does not have a steady income, his agricultural practices provide a more viable livelihood than commuting to the city for work.

James frequently relies on forest resources to provide a livelihood for his family. In practice, he collects various roots from the forest, including Chaney Root (*Simlax Balibisiana*),

Blood Wiss (*Vitis Tiliifolia*), Strong Back (*Boubreria Orata*), Raw Moon (*Trophis Race Mosa*), and Donkey Weed (*Stylosanthes Hamata*). These various roots, among others like Sarsparilla (*Smilax regelii*) and Hug-Me-Tight (*Polypodium Exiguum*, *Filicineae Fam*), are used to make what is called Roots Drink. The drink is very popular in Jamaica as a type of cure all, which makes sense given the medicinal properties of these roots that were commonly used in Maroon dietary practices. For example, Chaney Root is frequently used as a pain killer, but is also quite popularly used as an aphrodisiac; Strong Back is used to treat throat irritation; Blood Wiss is also used as a pain killer; and Raw Moon is thought to enhance male fertility, which carries great significance in Jamaica.

The forest also provides a home to wild goats—these were once domesticated goats that escaped into the forest—which can fetch a considerable price at the market place and provide inroads to animal husbandry practices. James hunts wild goats in the forest to sell in the community and build his own herd, which consisted of 7 goats, both wild and domesticated, during the time of my fieldwork. In addition to harvesting yam sticks for agricultural production and lumber for coal production—two practices that were strictly forbidden by the LFMC—James also collects guano from nearby caves as a natural and seemingly effective fertilizer, which was widely used among the people of Bunkers Hill. While this practice is also forbidden by the LFMC, James has been approached by biologists from both the University of the West Indies as well as North American universities who were interested in exploring the use of guano in agricultural production. One researcher from the U.S. paid James to collect a sac of guano, but James never heard from the researcher after they left Bunkers Hill. James has also been employed by FDJ to clear forested areas. In this practice, FDJ hires people in forest fringe

communities to clear trails and entry points to the forest to provide pathways into the forested areas where FDJ practices timber cultivation. However, outside of the practice of the FDJ, they strictly prohibit clearing forested areas in any form.

When I set off with James, one of his sons, and a young friend of mine, we crossed a shallow area of the Clear River, a small section of the Lower Martha Brae River, on our way to harvest guano from some nearby caves. Along the way James pointed out old trails and paths that Maroons used during the colonial era. He explained that the Maroons would use back trails around the mountainous areas and stay close to caves where they could seek refuge when pursued by British soldiers. As we crossed the river, I carefully waded through the water while trying to avoid slipping on algae covered rocks and being washed away with the current. Meanwhile, James crossed the river with elegance and poise, never stumbling or stopping to check his footing. As we followed the trails leading to our destination, James and his son pointed out many different kinds of plants and explained their significance. Many of these I mentioned earlier in the explanation of roots drink. It was clear that James had a profound knowledge of the flora in Bunkers Hill, which he had been building for the better part of his life. The narratives of nature that he shared with me began to shape my understanding of the production of nature in Cockpit Country as he shared his thoughts and feelings about the space and place of “the Cockpit.”

When we reached the mouth of the cave, James uncovered a glass bottle containing kerosene and a wick from a crevice in the cave wall. We then proceeded inside where James showed me several cave formations, including stalagmites and stalactites, as well as where the bats were resting and where they accessed the cave. At first, my young companion of 11 years of

age was somewhat apprehensive as he had never been in a cave before. But within minutes, he and James' son began to explore the features of the cave, touching and talking about the rock formations and stalagmites. They looked up to the cave ceiling with excitement as they saw the reflection of our torch in the bats' eyes, and commented on the sounds the bats were making. This moment provided a unique insight into the production of nature in Bunkers Hill, as I was able to experience this place with people of various ages and document their behavior and interaction. For the young people accompanying us, it was a space of exploration and active thinking. As the children explored each feature of the environment, they expressed their fascination. This type of exploration recalls Kellert's (2002) notion of direct experiences of nature, whereby people experience environments largely outside and independent of the built environment, e.g. with plants, animals, and habitats that for the most part function apart from continuous human input and control. As Kellert and several scholars have argued (e.g., Kahn, 1999), these types of experiences are critical in fostering a more situated understanding of and connection to nature; and these experiences are typical of people living in forest fringe communities like Bunkers Hill.

On a more personal level for James, he described his time in the caves as a time where he feels closer to god. For him, the cave was a place to harvest guano to support his farm, but also a place of worship. He pointed to various geological formations and described the space as a cathedral, where he could pray and express his appreciation for the nature around him, which he would point to and describe at every turn. To James, nature is the essence of his being, the thing that supports his family, and a medium through which to find and appreciate his spiritual beliefs. These views of nature were expressed in one of our conversations,

Yeah, nature real man, 'cause look around, you can see the mountains them green, trees them green, birds them happy, and everything nice you know. Yeah, many place you go right now you don't really get this environment like how you get here so. Yeah, this part a island a right, a like good environment, you know... Yeah, differently everything nice in nature still differently. 'Cause banana ripe the snake gone come eat it, banana ripe the bird come and eat it, and you got it fi eat same way -- nature just nice. By nice you just sit down and watch the snake come and go up there and start feed, yeah. So it's all good.

This narrative taken in context is particularly telling. One of the primary concerns of the LFMC was providing environmental education in an effort to build an understanding of the “value” of forest resources. The thinking was that by providing a sense of “value,” people would treat the forest resources with greater care—in essence, the LFMCs intended to foster a sense of environmental stewardship. However, as expressed in James’ narrative, his sense of stewardship developed in a much more integrated sense, whereby the forest provides a means of survival for him and his family, while also providing a space for him to express his spirituality. Beyond this, he also expresses what Kellert (1984, 1998, and 2002) defined as an ecologicistic attitude; that is, having a sense of concern for the environment as a system. In his narrative, James spoke of the common food resources shared by people and various other species of animals, notably birds and snakes. Beyond this attitude, for James and the people of Bunkers Hill more broadly the forest may have a more integrated meaning than for the NGO facilitators and professionals who participated in the project but lived outside of the area (cf. Carrier, 2006; Proctor, 1995).

Top Trelawny - Agricultural and Environmental Practice

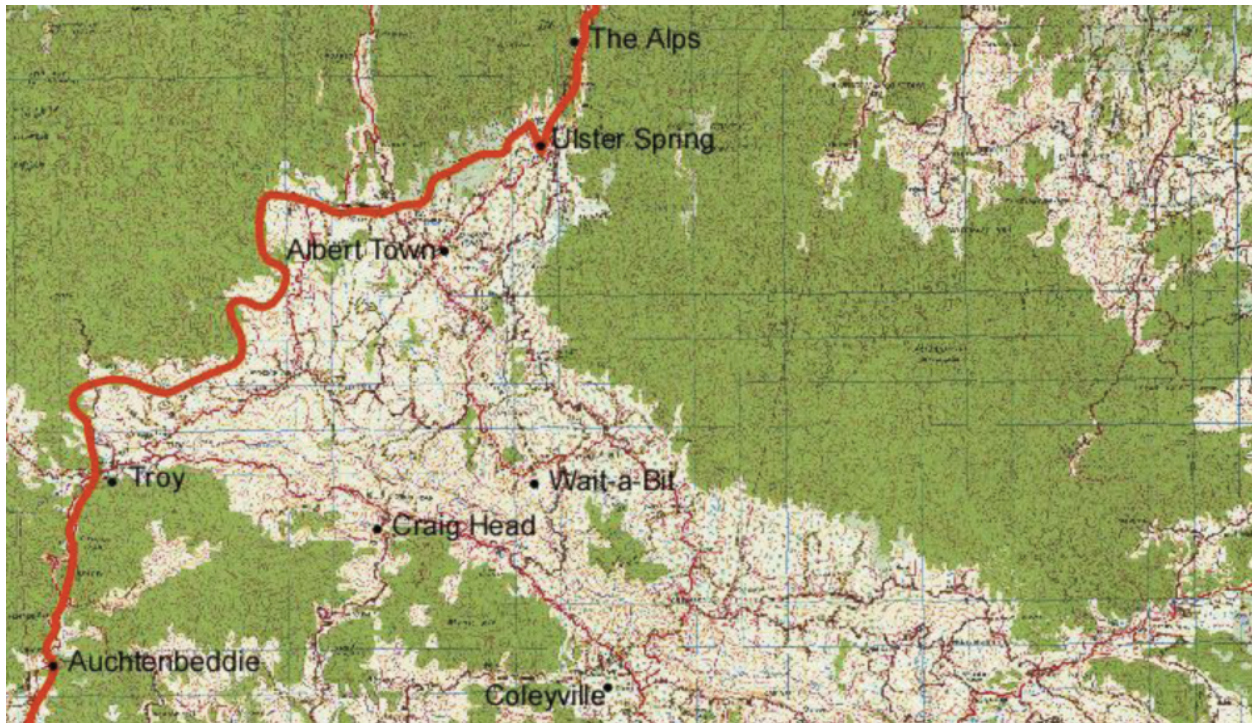


Figure 9: Top Trelawny/Albert Town and surrounding areas (Adapted from Mitchell et al., 2008).

The Top Trelawny area (fig. 9) is geographically distinct from the areas of the Lower Martha Brae. It is characterized by mountainous areas reaching roughly 600 m above sea level in the township of Albert Town. The climate is relatively cool compared to Bunkers Hill, with relatively high levels of humidity frequently approaching 100% (Dixon, 2005). This region of the Upper Martha Brae is considered ecologically significant because it is an important source of water to the upper and lower regions of the Martha Brae watershed. Meanwhile, many of the townships in the upper Martha Brae region do not have water infrastructure in place. All of the homes that I visited in the Top Trelawny region used 50-gallon drums to collect rainwater. Aside from the geographical differences, there are also significant differences in agricultural practices.

Yam has been the principal commodity produced in this area for generations (Beckford, Campbell, & Barker, 2011). The reader will recall that yam production on hilly plantation “backlands” is a practice that was promoted by the British large-scale plantation system during the slavery era (Hooper, 1886). The geographical characteristics of steep hillsides cater to this practice. As in Bunkers Hill, hillside farming is a practice whereby various crops are planted according to the rainy and dry seasons. These techniques allow the farmers to practice cultivation without the advantages of irrigation infrastructure. However, due to the lack of flat lands in Top Trelawny and the culture of farming in the area, the main agricultural product is yam, which gets the best yields under the available conditions. Again, the average plot size was 1 to 2 acres, but several of the farmers with whom I spoke had acquired additional lands throughout the years, or already had access to family land.

Given the heavy emphasis on yam production and its export value, road infrastructure was significantly better suited to commercial traffic than the other areas included in the LFMC project. Albert Town (fig. 2)—a central township in Top Trelawny—is between 18 and 20 miles from Falmouth, but is a much easier trip than Falmouth to Bunkers Hill given the road conditions. In comparison, the townships of Bunkers Hill and Flagstaff received relatively little infrastructure since the 1980s when the agricultural industry across Jamaica began to collapse (Weis, 2004).

The LFMC in this area, while carrying the same overall goals of the CCLFMC, took a different route to providing sustainable livelihoods and promoting environmental conservation. As such, the micro-projects took on a varied character. Due to the heavy emphasis on yam farming, the LFMCs promoted their “Living Yam Stick” Project more so than in the other project

areas. In this project, LFMC participants were given bitter damson (*Simaruba glauca*) trees (fig. 3) to use in place of yam sticks. The trees take approximately five years to mature to the point where they can support yam vines. I visited several farms in the area that were using the “Living Yam Sticks” to some extent. There were an average of five trees per farm, but an average of 200 hills of yam per acre. While five trees per farm may be a promising start, it certainly leaves significant room for improvement. A major obstacle in this project is the maturation time of the trees. With small land holdings, it would be difficult to switch yam stick practices with great speed or efficiency, because they do not have the land resources to maintain current production while cultivating bitter damson trees throughout their five year maturation period. It should be noted that, through all areas where I conducted my research, the vast majority of farmers used a combination of traditional yam sticks and bamboo. However, there were two farmers with larger land holdings that do not participate in the LFMCS who have employed this process since the 1990s.



Figure 10: Bitter Damson Trees.

On one of my visits to a farm in Auchtembeddie in the Top Trelawny region, I learned a great deal about how the process of the “Living Yam Stick” works. This was a seven-acre farm that had been in the family for generations, and had been extended with profits from yam production. The farmer was interested in finding methods that would help to alleviate soil erosion, provide shade to plots that were recovering from intensive farming, and decrease the production costs of yam farming. In this particular instance, the farmer explored the use of living trees. For one, he hypothesized that using living trees would eliminate the need for purchasing low quality yam sticks on an annual basis, and significantly reduce labor costs, which has been a concern for farmers and researchers alike (Beckford, 2009). He worked with the FDJ to explore the options, but found that he was not getting the interest or help that he needed from

them. However, he came across the bitter damson tree in his research and was intrigued by the fact the roots grow straight down, which would not interfere with yam growth. Given his relatively large land holding, he was able to introduce the tree to parts of the farm that were not actively being used for production, while employing the traditional use of yam sticks where he was actively producing. As the trees began to mature, he shifted production to these areas and began to plant trees on the plots from where he had shifted cultivation.

In this practice, the farmer was clearly showing various concerns for the environment. In our discussion, Jones pointed out that yam production strips the soil of nutrients, but by using trees in place of yam sticks, he was simultaneously expressing a sense of “stewardship” and good business practice. The trees helped to prevent soil erosion while also attracting birds from the more densely forested areas. They also provided shade for areas that were not actively being farmed, which promoted undergrowth that would eventually be turned over to fertilize the soil. Further, the notion of trees as a retirement fund or source of income for the future was strongly expressed.

Regardless of the success of Jones’ use of the bitter damson, the prohibition of cutting yam stick in this area was not well received. Farmers in this area depend upon the use of traditional yam sticks, and are often resistant to alternatives such as plastic yam sticks (Beckford, Barker, and Bailey, 2007). This view, in the eyes of the farmers in Top Trelawny, was resisted in light of the environmental knowledge they had developed over the course of their lives. In the following excerpt, I asked another farmer, Mr. G, what effect he felt the yam stick practice had on the forest:

I don't feel it's a big harm, because yam stick you stick in the ground, them no bigger than this [illustrates roughly 2 inches in diameter]. If you cut a yam stick

where you have like size here, it serve for 3 year. You no have to cut stick for 3 year. You no get yam them so big. Most likely if a man come and cut 200 yam stick in the forest, it no effect the forest. I tell you why, when me a small youth me used to go to the forest. When me was a little youth me used to go to the forest with sometime me go with me parents, me father. Before them environmental thing we used to cut stick. And you pack the donkey and you go cut stick, it no do the forest nothing. Two toes by a ground and go back a forest it grow back. Because the same tree where you cut spring back and grow again. So really no, you do it nothing. I mean the cedar tree, the mahoe tree, the broadleaf tree, and the rest of tree them you say you know a government tree them. If people go in there and cut those tree now it a problem. Because when you go and cut them tree no spring again. You have to replant them. So if you cut the tree them in a section of the forest, a wide section of the forest gone left without tree. You get less rainfall when you cut out them wood. But normally you could cut some rod wood or ironwood. Do it nothing! Two thousand spring back! But now the mahoe and the broadleaf tree, and forest man plant those wood, you ca'an cut them. And them swore the people no cut them, neither. It against the law!

This key narrative illustrates several points. Mr. G has pointed out a major contradiction in the Living Yam Stick program—it was intended to protect tree species that have been introduced by the FDJ as lumber trees and to curb forest fragmentation. As stated in TNC literature, it was estimated that up to six million tree saplings were harvested on an annual basis (TNC, 2007). However, many farmers expressed that this concern is not completely valid. There are introduced species such as cedar (*Cedrela odorata*) and mahoe (*Talipariti elatum*) that are not appropriate for the use of yam sticks as they are too soft. However, rod wood (*Laetia guidonia*) and ironwood (*Erythroxylon areolatum*) trees, as Mr. G mentioned, provide a more suitable form of yam stick. Conservationists were more concerned with forest fragmentation, which they argue limits the ranging characteristics of endemic species of parrots, leading to a population decrease (TNC, 2007; Tole, 2006). Yet sapling removal, as argued by several farmers that I spoke with, does not contribute to fragmentation as saplings are not a part of the tree top canopy. Paradoxically, people like Mr. G were a prime target for the LFMC projects, as conservationists

working with the LFMCs associated people's use of the forest in forest-fringe communities with tree removal. Further, concerning the LFMCs, tree species that were safe for use as yam sticks were never specified, just that saplings should not be removed from the forest. However, as Mr. G indicated, clearing saplings in an area of forest would quickly yield new saplings without contributing to fragmentation. This environmental knowledge was shared by the majority of the farmers in the area. In fact, researchers hired by TNC have found that, "...while there may be some degradation occurring on the fringes, deforestation no longer occurs within the forest reserve" (Newman, 2007). This point had also been emphasized by rangers working in the FDJ, but this point seems to have been widely ignored by TNC. TNC continued to express the concern for sapling removal, regardless of the species. However, throughout the course of my fieldwork, it was widely expressed by people that worked directly with TNC that they appropriated scientific data to their own ends. One of these ends was to maintain funding streams that supported their work in Jamaica.

Another issue regarding sapling use concerns scale. The vast majority of the LFMC participants fell into the small scale farming category, where they tend to work plots of land under five acres—typically one to two acres. As indicated above such small holders would be hard pressed to introduce the bitter damson tree in a coordinated manner that would not interfere with production. Again, the bitter damson tree takes about five years to mature, which leaves the small scale farmer with the challenge of appropriating lands to allow the trees to mature while maintaining productivity in their small plots. This situation helps explain why so few farmers pursued this program to any degree, in that they did not have the space, place, or patience to participate in this practice. Further, the vast majority of farmers, while holding claim to small

plots of land, cannot produce a title, leading to issues of land (in)security. Given these conditions, the farmer has little interest in developing an advanced, ecologically sound yam farm (FAO, 1989). In a consideration of this, it would certainly seem that the LFMCs targeted the wrong population. It would be more beneficial to consider the large scale farmers for the current program, while modifying the program for small scale farmers to plant mature trees and help secure land titles.

Top Trelawny - An Exploration of Nature

As in all of the areas of Cockpit Country that I visited, there were several opportunities to explore the nature of the area with LFMC members as well as the community more broadly. In this part of the chapter, I will document some of the key interactions to develop a lens through which to begin understanding how people in Top Trelawny view and interact with nature. As in the Bunkers Hill section, I will share narratives of nature in conjunction with my own observations.

On these varied explorations of the forested and agricultural areas of Cockpit Country, I listened carefully to the people that accompanied me to learn more about their views of nature. On one particular occasion, I was speaking with a group of people about “the water problem” in Top Trelawny. All homes in the area use water tanks to collect rainwater for consumption, bathing, cleaning, etc. During the drier months (typically winter), these water supplies are quickly depleted. The GoJ has developed some water infrastructure in the Top Trelawny area, which consists of a series of standpipes located at the side of major roadways. The standpipes in turn provide employment for some people in the area to sell water. People will collect five

gallon water jugs from their customers' homes, fill them at the standpipes, and deliver them.

When discussing this with community residents, one gentleman looked at me and said, “wata problem, what wata problem?” He invited me to take a short walk, where he showed me streams that were running freely, providing water to nearby farms. He laughed and said, “wata all around de place!” This potable water was relatively easy to access, yet the roadside standpipes provided a more convenient way to fetch water, as one could drive a car to the standpipes and fill several water jugs. On our walk, he also pointed out various types of plants and produce. He proudly pointed to a field of yam and said that yam is the pride of Top Trelawny. He also pointed out several medicinal plants, including Search-Mi-Heart (*Rhytidophyllum tomentosum*), which is used to treat the common cold.

On another occasion, I was walking through the forest in Wilson's Run (Top Trelawny) where an LFMC participant took me and some of the other LFMC members on a tour through the forest. It was amazing to see the way he moved through the forest with a sense of awe, as if he had never seen the place before. However, as he began to locate and describe the plants and animals of Cockpit Country, it became abundantly clear that he had spent his entire life living, working and playing in the area. On one particular occasion, he noticed a stack of roughly twenty saplings that had been cut for yam sticks. While he was not particularly critical of the use of yam sticks, he did point out that bark had been stripped from a mature tree to tie the sticks into a bundle. He described how stripping just a small amount of bark would most likely kill the tree, which he saw as a complete waste.

Later on our walk, I noticed several ants that were swarming over a tree. I mentioned

that the tree would soon be finished from the ants. My companion looked at me and said, “that’s how it goes. The ants eat the tree, the birds eat the ants, we eat the birds, and so on...” This brief statement, as well as his broader understanding of the forest and its resources, depicts a strong ecologicistic attitude toward nature (Kellert, 2002). He understood that nature works as a system, whereby all organisms play a pivotal role in supporting activity and survival. However, he also expressed a distinctly moralistic attitude toward nature (Kellert, 2002). While he did not necessarily approve of broad scale yam stick harvesting, he understood that these products were necessary for the maintenance of agricultural practices. In this case, he expressed a moralistic attitude, whereby he believed the forest and the various species of plants and animals should not be over-exploited, yet he understood them to be an integral component to the livelihoods of people living in Cockpit Country. Pushing the point, which will be further elucidated later in this chapter, he saw the people of Cockpit Country as a part of nature—as a part of a space where all organisms exist in and share the place.

This type of experience was common in all of the areas where I conducted my research. The pervasive ecologicistic, moralistic and naturalistic attitudes were grounded in people’s dependence on forest resources for various aspects of their lives. Nature was regarded as a social medium that is fundamentally interwoven into the lives of the people that live there, as I will discuss further in the following section.

Flagstaff - Agricultural and Environmental Practices

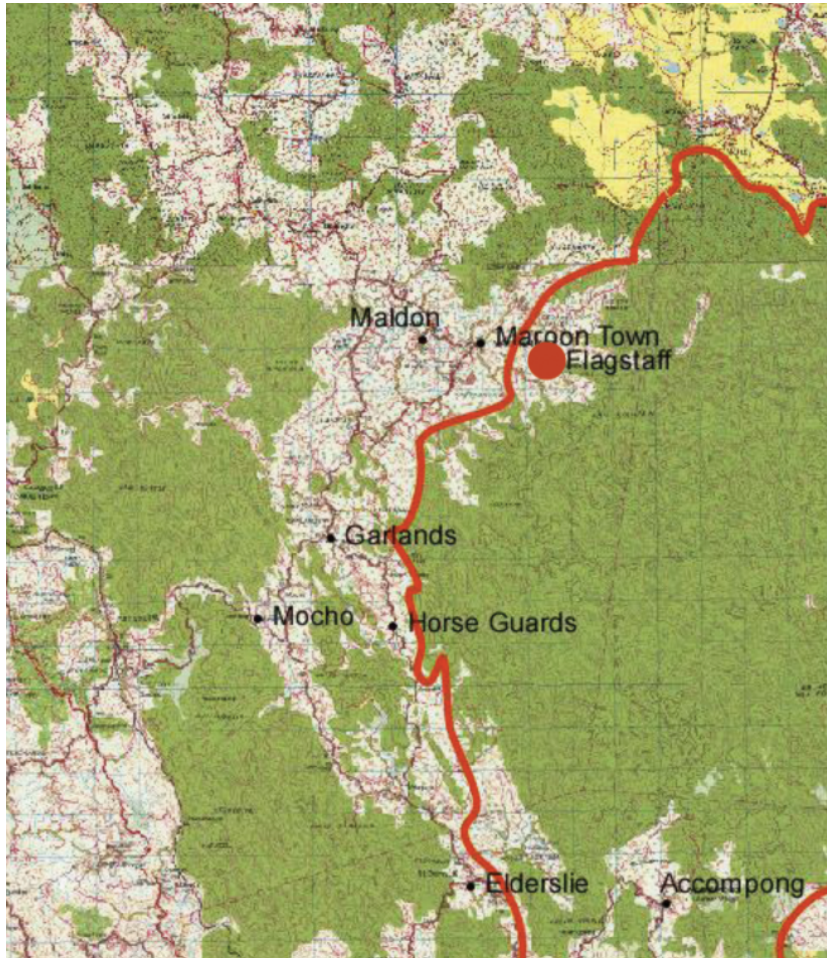


Figure 11: Flagstaff and surrounding areas (Adapted from Mitchell et al., 2008).

Flagstaff is located roughly 15 miles outside of Montego Bay, the capital of St. James. Montego Bay is one of three major international tourist destinations in Jamaica, which, in the plans of TNC and USAID, is a convenient port for tourists to access Flagstaff. Montego Bay has a thriving agricultural trade and market place. All manner of goods may be acquired, from the thriving sex industry to trade of endangered species. Agricultural production in Flagstaff takes on a similar paradigm to that of Bunkers Hill, but there is a very different agricultural history in

this area that is intimately connected to the banana trade. Up to the collapse of the banana trade and agriculture in general in the 1990s, Flagstaff was a major producer of bananas for export to England. However, economic restructuring sanctioned through the IMF ended the trade (Weis, 2004). With this event, all four of the major banana packaging plants in Maroon Town, Browns Town, Flagstaff, and Kensington discontinued operations in the 1980s with no future export prospects in sight. Many of the farmers continued to produce bananas on a smaller scale with some prospect for local distribution, e.g. at the Montego Bay market place and a local banana chip factory in Maroon Town. However, the majority of the remaining crops were wiped out by hurricane Ivan in 2004.

Following this history, several farmers in the area continue to grow bananas, though much of the yield never finds a market. However, also following the history of the area, the farmers continue to diversify crops on a subsistence basis to provide basic ground provisions for their families. These include the usual fare mentioned earlier in this draft, with some inclusions such as sorrel (*Rumex acetosa*) and soursop (*Annona Muricata*). This is not to say that these plants are not grown in other parts of Cockpit Country, but they were more present in my observations and people's narratives in Flagstaff and surrounding areas. However, the staple crops are still based on ground provisions including yam, dasheen, a variety of peppers, pumpkin, carrot, cabbage, cucumber and a host of other fruits and vegetables. Also, in tradition with Jamaican cuisine, several people rear goats, pigs and chickens for their own tables and sale to people in the area.

Flagstaff - An Exploration of Nature

Due to a more favorable reception to the language of sustainable development than had been experienced by TNC and USAID in Bunkers Hill, Flagstaff became the focal point for the development of ecotourism projects. As in all three of the major areas that I conducted my research, people's everyday routines were thoroughly immersed in the sorts of direct experiences of nature Kellert (2002) depicts. My fieldwork in Flagstaff was filled with experiences of and conversations about nature. For the remainder of this section, I will describe some of these experiences in detail to demonstrate the everydayness and immediacy of nature in people's lives.

To begin, many people in the area would describe their experiences of Flagstaff and the surrounding areas of Browns Town, Shaw Castle, and Friendship to name a few, during childhood. Many of these experiences were grounded in play activities in the forest, activities that appropriated spaces of production, places of history, and forest resources more broadly in the context of young people's development of an affective affiliation with nature. People over the age of 30 tended to speak more about their experiences of the forest than those in younger generations—a tendency that I observed throughout the aforementioned communities. People's experiences of the forest are predominantly grounded in the presence of a strong agricultural industry lasting, to some extent, into the 1990s (Weis, 2004). As such, many farmers were faced with a shifting set of issues concerning income and labor, whereby decreasing demand for goods produced in and around the forest—principally sugar cane, yam, and banana—lead to decreasing use of the forest in many respects, particularly as a medium for play and broader social interaction. In the context of Kellert's work, this change in forest experiences depicts a decrease

in direct experiences of nature; and many of the children that I observed were more keen to play video games and engage in activities close to the home.

For many people, particularly through the 1990s, education was frequently secondary to providing the labor necessary to produce agricultural yields that met market demands. Many people sought the help of their children around the age of 12 in practices of forest cultivation. However, I will begin with people's experiences before this age to provide a well-defined description of young people's experiences of the forest. For young children who were attending school, weekends were frequently spent in the forest with their families cultivating crops of sugar cane and banana for sale on the domestic and international market. Yet children of this age did not typically possess the strength and skill to make a significant contribution. So, many helped by fetching water and firewood, herding goats, and bringing lunch from home for their parents. Young people would carry out these activities on their own or with siblings and friends. Meanwhile, they would stay in the forest with their parents, occupying their time with games, such as catching crayfish, playing in the river, and seeking out fruit to eat. A 48 year old man shared a brief story with me, where he and his friends would go into the forest to collect firewood. In their time in the forest, they would look for hog plum (*Spondias Monbin*) and star apple (*Chrysophyllum cainito*). During this time, they would stop to play hide and seek, play in the river, and see who could catch the most crayfish.

Young people developed an intimate knowledge of the forest environment, tracking animals and following trails that had been established by Maroons and later through agricultural practice, collecting firewood, and finding fruits that they enjoyed. For many children, the forest was a space of social interaction, and a place that fostered their own development and

environmental knowledge. One person I spoke with, a 58 year old man, said that his mother would regularly bring him into the forest when she went to reap produce, and he would simply play on his own. Take the following narrative to exemplify how he felt in the forest as a child

When me a child growing up, me glad fi hear me old lady se, “this morning all a we go a bush,” you know. For me grow poor, you know. Me no se me grow high or me never short a thing. Sometime when me a likkle youth, when me nah go a school, like me go a school from Monday to Friday, me glad a Saturday morning you hear me old lady, we go a bush go look food you know. That’s how it go.

Regarding his thoughts and feelings concerning his time in the forest, he went on to say:

...If you out a so [in town] you boring, and you reach a mountain, you no boring again. You just happy like, you see when you go inna bush and see de bud a we happy, joyful. That’s when you left off e road man, and gone mountain, you happy, you know. You got no one in there fi molest you, you know. E bird or anything in deah ca’an hurt your feelings you know. But when you out, out here now [in town] someone will come a say something to you what you don’t like and you on a mouth weed. When you inna e mountain you happy. I happy stand it inna you whole life. Yes, man! When you go inna de mountain, nothing in deah fi tempt you. Yah man! You inna deah, what me hear people se me, deah saw me somma time, for if they nah trouble him [the forest], him nah trouble you. If you inna mountain and coco even a mangos, you get some eat a throw something deah so, you go on look ‘pon this ‘pon dat, him no trouble you no trouble him. So inna mountain, any likkle thing inna mountain you no afraid of. Make no sense afraid a him. If you no trouble him, him nah trouble you.

In this narrative, he depicts a space of comfort, belonging and safety in the forest. According to Kellert (2002) and Kahn (1998) this type of ongoing interaction with the forest provides many critical junctures for developing an affective affiliation with nature. However, it was interesting to note how the routines of young people living on the forest periphery changed as they began to mature. As people in Cockpit Country approach adulthood, the forest becomes less of a medium

of play and more one of labor and solitude. This is not to say that people's early affiliations were necessarily altered, but that their activities changed with age.

Beginning in adolescence, around the age of twelve, boys would begin to take on a more structured role in assisting their parents with their farms. The forest became less of a place of play and more of a place of labor. Some of these activities included hauling agricultural produce up to 4 miles from within the forest to townships such as Flagstaff from where the products could be shipped. Others helped with the harvesting process. Many young people would help their parents to raise pigs, goats and cattle in the forest, though they often carried out these tasks on their own. Typically, a young person's responsibilities included a variety of these activities. Mr. Han, a resident of Flagstaff, worked as a child with his family producing yam and banana in the forest, while also raising pigs and cattle. In addition to these practices, many people harvested wood from the forest to build houses and furniture, which Mr. Han did more of in adulthood. For Mr. Han, the forest was a place where he enjoyed his work on the family farm. While he stayed in school through the age of 17 and graduated, which was relatively unusual, Mr. Han still made time as a boy to assist his family with their farm. He found that while the work was labor intensive, his time inside the forest was quiet and peaceful, which brought him to enjoy the trade skills he was developing as a young man. Further, the forest afforded an opportunity for Mr. Han to work for himself as a young man, as opposed to working for the wealthier landowners in the vicinity.

In contrast, Mrs. Han's experiences were a bit different. Her family, like Mr. Han's, farmed in the forest because the lands on the forest periphery were owned by "bigger people." For small farmers, the forest provided a means to support their livelihoods, as it still does for

many people to date, though to a lesser extent. Similarly, she would help her parents to dig yam and harvest bananas, but much of her time in the forest was spent with friends looking for fruit, catching crayfish in the river, and enjoying the coolness of the forest. To illustrate some of the gendered differences of forest experiences, I will share one of Mrs. Han's narratives that was largely representative of women over the age of 30 in Flagstaff, as well as the Cockpit Country forest communities more broadly.

We used to go down there and wash [wash clothes in the river]. When we going in the morning we buy pork, corned pork and flour. Because bananas down there a one man banana, what name Uncle T., and one him a since. They have banana walk there so we go and thief the man him banana [laughs]. And go a river, and we go in the morning, as we go down we put a pot on the fire. When we put the pot on the fire now, we peeling food and make the flour and put in there with the pork, and cover it up and leave it now and go wash [laundry]. And on one rock we go put pot on a rock. And we go in there, we go wash all day. And we spread the clothes out on the grass, because there's a little place in the grass up there by Garrison Park there. So it level, and the water stream round there. And we put up the clothes on the grass and they dry up like when we wash a here [at her current home] and they dry on the line. And we fold them neat and pack we pan. And carry and put on a rock. That's if the rain no come down. And after we do that now, we sit down and put some leaf, banana leaf and just spread them out on the ground, and we just throw the food on the leaf, pick out the food so. Put it down 'pon deh, all the way now, we no have we can now. Or we take up the pot soup, outta de pot, the broth. Right, we juk up wah we eat, we juk up wah we eat, we juk up wah we eat and fill we belly. When we done now we just kick off we clothes, and we go in the water for rest of day. And night carry we up you know! Yeah, dusk come up--well eat, well washed, well being! Lovely man, lovely childhood we had here!

While the narrative is a bit lengthy, it goes to paint a graphic picture of forest life for many of the young women in Cockpit Country. These were work and play experiences that were interwoven in a social milieu that went to strengthen familial ties and friendships. What was also apparent is the emergent gendered difference in forest experiences. For developing young men, these experiences were grounded in agricultural production and animal husbandry, where days on end

were often spent working with a few family members, or, quite frequently, in complete isolation. For adolescent boys, games were played outside of the forest, predominantly revolving around football (soccer) and cricket (a bat and ball game). However, there were activities that were considered to be enjoyable, that also facilitated their environmental knowledge and development. In the following interview with a 51 year old man in Shaw Castle (a neighboring district to Flagstaff), he shared some of his experiences of the forest during adolescence:

*We used to go hunting in my boy days, like birds. And we used to have a lot of goats, wild goats. Yeah, so we used to go hunting for them as well... Like pigeon and a two special birds, anytime the government give out them, the bird season order. Yes, whenever time a one go to the bush, specialize in those two birds, Pigeon [commonly referred to as the Plain Pigeon (*Patagioenas inornata*)] a Bald Plate [also know as the White-Crowned Pigeon (*Patagioenas leucocephala*)]... We shoot them fi eat, but that was then. Because right now, certain vibes me learn fi never shoot them again.*

Young boys' experiences of the forest revolved around agriculture, animal husbandry, and hunting—these were gendered experiences that facilitated young people's development in context. Broadly, for boys and girls, these work and play activities in and out of the forest provided a space and place for the development of environmental knowledge. As Katz (2004) noted with respect to the development of young people's environmental knowledge in Sudan, and in line with that of young people in Cockpit Country, much of this environmental knowledge and skill development took place in the context of work and play activities. Consider one of the narratives shared earlier in this chapter, where in adulthood James bolstered his goat herd by hunting wild goats in the forest. These activities, practiced in childhood and adolescence, complement the activities that men and women frequently practice in adulthood. Yet, as boys matured, the forest became more of a space of isolation. For example, many young men would smoke ganja while in the forest. This was an activity that was not acceptable in the home or in

public, as opposed to current times. In contrast, young women appropriated the forest resources to complete household chores. Yet, this experience for young women was where social nature was produced and experienced in nuanced ways. Rather than carrying out these household duties in the home, young women moved such household practices into the forested areas, where their experiences of place were formed through a form of gendered labor.

Shifting Environmental Practices

As agricultural practices have dwindled considerably since IMF economic restructuring throughout the 1980s and 1990s (Polanyi-Levitt, 1991; Lundy, 1999; Weis, 2004), environmental practices throughout Cockpit Country have also changed considerably. Many of the young people have set their sights on the urban areas in search of new employment opportunities (Thomas, 2006; Jaffe et al., 2007). As one gentleman in Flagstaff commented,

Life in Jamaica is not in the woods anymore... Nobody farm in the woods no more. Everybody on this street, just like the wayside you see the moto pass. It's like people run from where it is to where it isn't. You can go in the woods and get some board to build a house. It doesn't out here. You have to spend money to get it here. But in the yard and the man that carry those lumber to do carry from out, you have to head it to carry out. And this younger generation, you already know, in the street.

Given this shift, there is a far larger concentration of people over the age of 30 who practice agriculture in Cockpit Country as their predominant trade compared to younger generations. Those who remain in Cockpit Country communities also tend to gravitate to work outside of agricultural practices. These young people find work as taxi drivers, in construction, and in small shops and restaurants as well as commuting to the urban centers. Interestingly, many of

the young men who remain in forest fringe communities engage in illicit activities to provide an income and livelihood for their families. In addition to the usual fare of the ganja trade, the predominant form of illegal activity was phone scams. There is a broad approach to these scams, from scanning foreign phone numbers from lost phones and calling under a false identity seeking monetary assistance, to creating elaborate holiday vacation and lottery scams which require a down payment for participation or tax purposes. For the young people of Cockpit Country, phone scams act as a middle-ground, where they avoid the farming practices that they argue have “led to ‘nuttin’” for their parents, and the urban lifestyle that many say is too expensive. Further, young people in Jamaica generally gravitate toward the more technical industries, claiming that farming is “dutty work.”

Young women living in areas of Cockpit Country that are relatively accessible to urban centers typically seek work in service industries. These include call centers, store clerks, restaurants, and administrative positions to name a few. Of course, this does not exclude men, but this paradigm certainly favored the participation of women over men in forest-fringe communities, as women in these areas are increasingly outperforming their male counterparts in school, with more women completing secondary and tertiary degrees than men. However, while “Jamaican women graduate from tertiary institutions at higher rates than men, they are twice as likely to be unemployed and employed in low-paying sectors” (Jamaican Observer, March 7, 2012). And in the context of women living in forest-fringe communities, those that had the privilege of working in the service sector typically had low-paying jobs. In Flagstaff young women who regularly made the two-hour round trip to Montego Bay, commonly indicated that they preferred living in the countryside to be close to their families. They also said they enjoyed

the environmental attributes of the country—clean air and scenic views—compared to the urban areas. One young woman that I spoke with had started raising her children in Montego Bay, but moved to the country because one of her children had asthma. She said that after moving to Browns Town (a neighboring district to Flagstaff) her child no longer had respiratory issues.

Considering the shifting generational views that young people had toward farming, many of the CCLFMC proposed employment offerings were quite attractive to young people living there. Concerning Flagstaff and Bunkers Hill, the proposed ecotourism enterprise would offer a variety of positions, including tour guides, shop clerks, and craft production. Apart from the tour guide positions, these jobs were all quite familiar to young people living in Cockpit Country, as many had worked in service industries at some point in their lives. However, young people tend to go where the work is, and the LFMC, to date, has provided little work for those who have taken part in the program.

The concern for the decline in the farming sector is growing in central Jamaica. As one farmer said,

...that is why I think that what I am very, very concerned about what will happen after we [farmers] finish in this area. Because, the farming sector is dying, it is dying believe you me, lickle by lickle by lickle, it's dying. And a lot of people will miss the forest in the near, distant future, trust me. And because of less young people involving themselves in the farming sector... Younger people not taking up the farming sector, no. They are more involved in technology, but you can't eat technology. Technology is good, eh? [We laugh] You can't eat technology, honestly you can't eat it. You have to have some food.

Farming has provided food security to people in Cockpit Country for generations. As the professional opportunities for young people continue to move out of the forest fringe communities, serious concern for people's livelihoods is quite apparent. Beyond their lack of

success to date, it is not clear that the LFMCs can offer opportunities that would prompt a return to agriculture in the area. Considering their restrictions on agricultural practices and managerial difficulties, it seems unlikely. Further, many of the LFMC positions that interested young people were not centered on agriculture, but proposed to locate people in the service sector instead. In the context of Flagstaff, this practice stands in direct contradiction to the current national mandate for promoting young people's participation in the agricultural sector (Jamaican Observer, February 5th, 2012). It would seem that, at least in this particular instance, there is a fundamental contradiction between the needs of Jamaica—food security and employment—and ecotourism as a path for achieving these ends. That is, rather than promote agriculture, the LFMC tourism initiative was aimed partially at producing a rural proletariat poised to cater to the interests of foreign nationals while increasing their own dependence on imported food goods. However, the LFMCs, to some extent, did focus on agriculture in the Bunkers Hill and Top Trelawny areas. Top Trelawny, for example, is still a major site of yam production, and the LFMC concern over the use of tree saplings used in agricultural production (yam sticks) took precedence there.

People in the Middle

The preceding pages have been dedicated to developing an ethnographic description of the longstanding and shifting environmental practices of some of the rural population in Cockpit Country. This section of the chapter will reintroduce and describe LFMC participants that fall into what I call the middle sets—people who live in Cockpit Country, have access to land and resources, yet do not necessarily fall into the target population for projects considered by

organizations such as FDJ, USAID and TNC in that they are not small-scale farmers. Rather, the people that I am classifying as belonging to the middle sets, in the context of the LFMCS, are typically engaged in research and community outreach at the local level. These middle sets have established research and non-profit organizations that, to some extent, rely on grant funding, typically related to research and action concerning environmental and broader social issues, e.g. deforestation and poverty alleviation. Also, they are proponents and practitioners of ecotourism. While they may have some association with the wealthier planter class, they do not participate in broad-scale agriculture.

The Windsor Research Centre

The Windsor Research Centre is a small research group of two people in Windsor, Sherwood Content. The Windsor Great House has a history of natural science research, beginning in the 1920s with the work of Harold E. Anthony of the American Museum of Natural History to Miriam Rothschild's work in mammalogy during the mid-twentieth century. Rothschild owned the great house from 1947 to 1959, when the property was sold to Kaiser Bauxite. Mrs. Rothschild, however, maintained ownership of Windsor Cave, a hotspot for natural science research, which she donated in 1995 to the World Wildlife Fund for Nature in the United Kingdom. Kaiser used the estate for the resettlement of small-scale farmers who had been displaced by mining activities in the parish of St Anne. While the estate had been partitioned to farmers, the Great House, which was a small portion of the Windsor estate, was donated by Kaiser to The Boy Scouts Association of Jamaica. Michael Schwartz purchased the property from the former owners in 1986.

Michael Schwartz was born and formally educated in the United Kingdom, where he studied engineering and subsequently worked as an aircraft engineer in England and France before moving to Jamaica. Prior to his ventures in Cockpit Country, Schwartz had never worked in environmental conservation in any way. In fact, he stated that during the 1990s in Jamaica, he was, “involved with cutting down forest and building roads and developing building projects in the coast.” He purchased and rebuilt the Windsor Great House in 1986, at which time a biologist was using the facility to conduct research in the area. Following hurricane Gilbert in 1988, a team of 16 biologists from the UK requested lodging at the Windsor Great House to study the effect of the hurricane on the parrot population. This came to be a routine, where biologists as well as a host of other researchers and nature tourists such as birdwatchers would rent rooms at the Windsor Great House while in Cockpit Country. As the majority of these people were researchers and naturists, Mike Schwartz came to be exposed to their work and pursued some of these interests through his own reading, which included *Biophilia* by E.O. Wilson and *The Selfish Gene* by Richard Dawkins. Through the interests of his guests, his own readings, and a young biologist in residence, Susan Koenig (the current director of research at the Windsor Research Centre), Schwartz said, “you start to see the value of what’s around you.”

Seeing this value, he and Koenig agreed to set up a research organization, where they decided to focus on the biodiversity of Cockpit Country. However, they realized they would need funding to get the venture off the ground, and received start up funding from the World Bank in 1999. They developed subsequent projects through collaborations with The Nature Conservancy, The Jamaica Environment Trust, The Southern Trelawny Environmental Association, and a host of other organizations. In 2010, The Windsor Research Centre was

awarded a three year, \$250,000 grant to support improving environmental impact assessments in Jamaica, which included an economic valuation of the natural resources of Cockpit Country. As mentioned earlier, Michael Schwartz was directly involved in the LFMCs. He provided environmental education training and workshops at the LFMC meetings as well as to the communities of concern, while acting as the treasurer for the North LFMC. Michael Schwartz and Susan Koenig have also helped to produce LFMC plans and documents, including the Cockpit Country Local Forestry Management Plan, which was funded by USAID. They also meet with government officials regularly to discuss environmental issues, including the concern over bauxite mining in Cockpit Country.

The mainstay of the research conducted through The Windsor Research Centre concerns endemic birds and snakes. The organization regularly employs people in the area to assist in projects such as conducting snake population surveys. They also participate in several environmental projects both in and outside of the LFMCs. One project that involved people from the area of Quickstep included an \$8000 reforestation project, where they are attempting to restore hilltops in the area to their “original forest cover.” Through such projects, and living in Cockpit Country, Mike and Susan have the opportunity to frequently interact with community members, where discussions of environmental threats such as bauxite mining, and environmental protection are commonplace. Many of these discussions are in formal meetings where Mike might present an environmental education lecture, while many others are more informal. Describing one key interaction with two forestry officers and a community member in a rum bar in Quickstep, Schwartz excitedly said,

I was sitting there and they [forestry officers and community members] know I'm interested in these things [environmental issues], so that naturally people talk

about things they are interested in hearing. But nevertheless, so I didn't drive the conversation, but their knowledge level was, [blows in astonishment] was way above what it would have been ten years ago. It was astonishing to have them talking on, um, with the knowledge of, not just saying boy we don't want bauxite mining here, there's reasons for this that and the other. The forestry officers were interested in native, you know, trees which have no use as timber, so it's a total change from the old forest officers who were interested in mahogany and cedar and timber, timber trees.

Living in the communities of concern affords a unique and rare opportunity for researchers and conservationists to interact with community members on a regular basis, whereby a more situated method of understanding local environmental issues and how they affect community members is possible. Most of the others involved in the area such as University of the West Indies researchers and facilitators from The Nature Conservancy, both researchers and conservation professionals live in the urban centers.

The Southern Trelawny Environmental Association

The Southern Trelawny Environmental Association (STEA) was founded by Hugh Dixon in 1996. Their objective is “to address environmental problems affecting south Trelawny, facilitate environmentally friendly economic and community development activities and to promote sustainable use of the natural resources of Cockpit Country” (stea.com). Hugh Dixon was born in Albert Town and lived there until he was 10 years of age. After a career in development, Mr. Dixon decided to return to Albert Town,

I had been working in development for a number of years, so I returned to Albert Town with the intention of living back home and contributing to my local environment. And part of my knowledge formed in my previous work and academic involvement was the knowledge of the value of this area with the Cockpit Country and its unique ecological features. So that stimulated my

interest, and then I came back here and it resulted in me, um, founding this STEA and pretty much organizing it to get it up and running.

The organization has participated in several projects including those around soil erosion, promoting local agriculture through the Trelawny Yam Festival, and contributing to school facilities by providing basic school needs, such as desks and chairs and repairing school buildings.

Living in the community of Albert Town, Hugh Dixon has the opportunity to interact with community members on a daily basis. The STEA soil erosion program, funded by the Environmental Foundation of Jamaica, was able to distribute calliandra plant (*Calliandra haematocephala*) seedlings to 412 farmers as a method for reducing erosion on steep sided hills used in agricultural production. In addition to distributing the calliandra plants to create a “natural terrace,” which helps to prevent excessive soil runoff, STEA had educated over 2000 farmers on the issue. In my conversations with farmers in the area, however, I discovered that several had stopped using the plant because it tended to reproduce quickly and overwhelm their crops.

Aside from working directly with community members in environmental conservation projects, STEA has also worked with the LFMCs, predominantly in the southeast region, where they have assisted in grant writing. Typically, STEA will glean a percentage of any grant moneys that are awarded for their assistance in preparing the application. As such, organizations like STEA and The Windsor Research Centre offer resources to local community based organizations that are often difficult to come by. The people that work with these organizations tend to be educated in Jamaica’s urban centers, e.g. The University of the West Indies, or abroad

as in the case of WRC. These organizations were critical local actors in the establishment of the Cockpit Country LFMCs. They provided advice and expertise in implementing LFMC projects, training community members in sustainable agricultural practices, and providing environmental education programs, as well as direct assistance in the form of grant writing for the LFMCs and producing LFMC documentation.

Connectedness to Nature

I invited people participating in all three Cockpit Country based LFMCs to take part in the survey portion of the study. I also walked through the communities included in my study to recruit participants (N=30) who were not affiliated with any environmental organizations to develop a basis for comparison. I attended LFMC meetings and other activities, and acted as participant-observer taking fieldnotes on the activities of community residents in and out of the LFMCs. I conducted interviews with 34 LFMC participants living in Cockpit Country. Following each interview, I orally delivered the Connectedness to Nature survey (Mayer & Frantz, 2004). The survey consists of 14 items designed to measure people's connectedness to nature on a 5-point Likert scale (See appendix A). This survey has a distinct advantage over the scales mentioned in the literature review in that it measures for affect and can be implemented in a short period of time.

Analysis

The quantitative data were organized to compare the three LFMC groups on people's connectedness to nature, as well as between people participating in LFMCs compared to those

who were not. The survey (see below) consisted of 14 items—items 4, 12, and 14 were reverse scored before conducting the analysis, as these items were negatively worded. The surveys were analyzed to test for independence between groups of people participating in the three LFMCs and people who did and did not participate in the LFMCs, between people participating in the three LFMCs, and across gender. An *a priori* power analysis yielded a required sample size of 60, and the current sample meets these requirements. To add to the depth of the survey data, qualitative responses to the survey were paired with the quantitative data. I analyzed these responses using a narrative analysis to highlight narrative themes paired with the quantitative data.

Connectedness to Nature Survey (Mayer and Frantz, 2004):

1. I often feel a sense of oneness with the natural world around me.
2. I think of the natural world as a community to which I belong.
3. I recognize and appreciate the intelligence of other living things.
4. I often feel disconnected from nature.
5. When I think of my life, I imagine myself to be a part of a larger cyclical process of living things.
6. I often feel kinship with animals and plants.
7. I feel as though I belong to the Earth as equally as it belongs to me.
8. I have a deep understanding of how my actions affect the natural world.
9. I often feel a part of the web of life.
10. I feel that all inhabitants of Earth, human, and nonhuman, share a common life force.
11. Like a tree can be a part of the forest, I feel embedded in the broader natural world.
12. When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature.
13. I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds on the trees.
14. My personal welfare is independent of the welfare of the natural world.

Results

The survey provided a means for assessing any differences concerning people's connectedness to nature between LFMC participants and non-participants, among the three LFMC groups, and across gender. People's connectedness to nature has become a common issue in environmental research; it provides a way of assessing levels of support for environmental protection. My analysis suggests a number of promising ideas and issues that should be considered in the context of the LFMCs and broader conservation and development programs in Jamaica. Following is my analysis of people's connectedness to nature concerning gender, location, and mode of participation. Means (*M*), Standard Deviations (*SD*), *F* values (*F*) and *t* values (*t*) are reported here to document any difference in connectedness to nature between the various groupings. When comparing composite survey scores across gender, location, and LFMC participation, there were no significant differences ($p < .05$).

Considering that the survey did not yield any significant differences in the study population, it will be instructive to consider specific survey items that received lower scores (a score of less than 3). The twelfth item on the scale, "When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature," received a very low score ($M=1.64$ after reverse scoring; $M=4.36$ before reverse scoring) across all people that took the survey. This item was reverse scored, indicating that the majority of the respondents identify as a top member of the hierarchy. This particular item may be analyzed in the context of the type of interaction that the study participants predominantly had with nature. Most of the participants practiced rural agriculture, at least part time, which is highly dependent on the vagaries of nature. Be that as it may, agricultural practices are commonplace in the rural communities of Cockpit

Country. The farmers are continually manipulating the land and environment to reproduce their own livelihoods. While these experiences of nature occur quite directly, there is still an extensive sense of mastery over nature exhibited in agricultural practices, creating a utilitarian perspective of nature.

The thirteenth item, “I often feel like I am only a small part of the world around me, and that I am no more important than the grass on the ground or the birds in the trees,” also received a low score across groups ($M=2.95$). With respect to one’s hierarchical position within nature, the relatively low score on the thirteenth item may be attributed to the production of nature among the rural people that live in Cockpit Country. The prevailing practice of manipulating nature and the environment through agriculture may be a route to an attitude that develops where people consider themselves before nature. This is an issue of particular concern in the context of environmental protection, and suggests the importance of considering people’s livelihoods when developing environmental protection programs. It is clear that people’s survival takes precedence over the environment; however, the majority of the participants saw their own livelihoods as something intimately connected to the welfare of the natural world ($M=4.34$). This position was correlated with the participants’ everyday practices, and many of the participants followed this item up with brief narratives of how their lives are intimately connected to nature. Most of them described the need for dense forest cover in Cockpit Country to protect people and their crops from hurricanes. Further, 46 of the people that I interviewed indicated that nature was the medium through which they produced their labor and food security.

To expand on the survey data, it will be prudent to consider the narratives paired with these responses. A common critique of survey research is that it frequently ignores social

context. However, taking a mixed methods approach in an ethnographic context, at least in the current research, works to address some of these issues (cf. Douglas & Katz, 2009). Again, during the survey portion of the interviews, I invited the interviewees to follow up with narrative accounts, thereby opening a space for more in-depth discussion about these relationships. For example, the following narratives embellished the respondents' answers to the twelfth item on the scale:

- *It is a lot, because the tree is a part of the forest and I surely am a part of the natural world, but that surely doesn't mean that I am not going to do what I have to do. I have to do what I have to do still. (F - 12)*
- *Yes I am, yeah make man all other things above, dominion over all animal and that thing, yes. (PS - 12)*
- *Ok, for one, you say what me feel about this earth, me a top member of the hierarchy, me feel like me the King and Queen of this whole thing. Because god say he make this thing we have dominion over it you know. (AF - 12)*
- *Yes, we are mankind. So mankind must live higher than the animal and find himself in better space. Man was made 'pon earth to serve Jah. And god made animal he made man, but animal, so we got to serve him and please him 'pon earth. For earth se we will do dem work, stand 'pon earth, praise him and you will live. So him on earth, you must show a principle more than the animal. You a man to live 'pon earth and praise god and live. (LU - 12)*

These responses were representative of the views of most people in Cockpit Country. There are two issues at work here: the first is that, in line with the community outreach goals of the LFMCs concerning environmental education, and with respect to personal feelings of connectedness to nature, there is an understanding that as part of nature people in Cockpit Country exist in and as a part of an ecosystem that is mutually supportive. As indicated in the first comment above, it is apparent that the forest provides resources that people in rural communities have come to rely on through centuries of political, economic and social marginalization. However, the use of these

resources is often questioned by the FDJ and LFMC mandate, which prohibit the extraction of forest resources without FDJ approval. The second issue concerns Christianity and religion more broadly—there is an understanding that the earth and everything on it is at people’s disposal. As such, through the dominant religious practice in Jamaica, Christianity, there is a proverbial grounding, where it is understood that people should stand above nature and exploit it for their survival. Interestingly, the LFMC mission to curb the use of forest resources in forest-fringe communities may come to loggerheads with one of the most frequently referenced books in Cockpit Country, the bible.

These responses connect to how people value nature, which will be discussed below. First, I want to consider how these representative narratives stand in tension with a purely quantitative analysis. According to Mayer and Frantz (2004), a low survey score indicates less of a connection to nature, or so we are led to believe, but when these responses are paired with the qualitative data something else emerges. For instance, in the first narrative the interviewee placed herself and her relation to nature between the interests of her livelihood and the LFMC. Even though the respondent recognized a deeper attachment to nature, she ultimately makes clear that survival trumps those concerns.

The remaining quotes all point to the influence of Christianity as a guide to one’s understanding of their his or her relationship with nature, but the survey questions lack the breadth and depth to invite a further telling of how the connectedness that it measures comes to be formed. Further, it fails to develop any understanding of people’s connectedness to nature, particularly concerning where people fit into people’s an imagined hierarchy of nature. Briefly consider the premise of the survey; measuring a “connection” to nature does not take into

account the social context of the variables it claims to measure, and so may not be able to ascertain the relationship between feeling connected and pro-environmental behavior. In a highly charged religious environment, the place of people in nature is largely influenced by the religion that one follows and the daily activities they engage in, e.g. farming (Eliade, 1987). As such, the concept of dominion over the earth is one that would be expected to be a dominant attitude among certain groups.

Overall, the response rate indicated a very strong connection with nature across all of the groups with whom I worked. What is particularly interesting about the analysis is that a strong connection with nature, which, per Mayer and Frantz's (2004) argument, and in line with my findings, is correlated with a strong conservation ethic, e.g. a desire to protect nature from environmentally destructive resource extraction industries. Meanwhile, these rural populations have been labeled as environmentally destructive groups, predominantly through what are considered to be unsustainable agricultural and waste disposal practices. As such, the LFMC programs, in addition to promoting forest conservation and alternative livelihoods, include environmental education classes concerning endangered species, ecosystem stability, and sustainable agriculture. The LFMCs have also participated in extensive outreach campaigns and offer a venue through which to take action concerning bauxite mining and environmental issues more broadly. Considering the various objectives of the LFMCs, particularly concerning programs intended to build environmental awareness, it is quite interesting to note that people who did and did not participate in the LFMCs had very similar scores in the connectedness to nature survey, a connection that is grounded in work and play experiences in childhood and adolescence, and a lifetime of agricultural production. However, the connectedness to nature

thesis only considers emotional and experiential variables. To extend this analysis, I will consider people's affective and experiential affiliation with nature in the context of how the participants "value" nature in the following section.

Valuation of Nature

According to TNC literature and interviews with NGO and international donor agency representatives and researchers living inside and outside of Cockpit Country, a critical component to the success of the LFMCs in preventing mining was to present their projects as economic alternatives to bauxite mining. That is to say that they aimed to promote the "value" of Cockpit Country, apart from the economic opportunities of bauxite. As such, the LFMCs were grounded in the establishment of microenterprises that had the potential to develop sustainable business practices in the area. These businesses, which were to some extent negotiated at the community level, leveraged agroforestry and ecotourism as viable venues for creating economic alternatives to bauxite mining, while diversifying the employment offering in Cockpit Country forest-fringe communities. Below I offer a perspective through which to understand what my study revealed of the shifting and emerging values of nature in this context, and discuss their implications for the LFMC project.

Valuing Cockpit Country

Given the nuanced ways in which people value nature, it makes sense to consider how the processes of valuation affect the implementation of Integrated Conservation and Development Projects (ICDP) and the populations of people with whom they work.

In light of the high natural and cultural values of Cockpit Country, stakeholders have crafted a vision that integrates biodiversity conservation, sustainable natural resource use and community development. (TNC, 2007)

The reader will notice that there is a direct relationship between various types of value. To briefly unpack these, let's consider the potential values in the above statement. Biodiversity conservation takes on the notion of an intrinsic value (Freeman, 2003). Ecologists and the like placed emphasis on this value representation of Cockpit Country. To reiterate, the "stakeholders" in the CCLFMC were charged with developing economic alternatives to bauxite mining and rural community practices deemed to be unsustainable by FDJ and TNC. In contrast, bauxite represents an instrumental economic value, which has the historically proven potential to generate foreign exchange that Jamaica is desperately in need of. In recent years environmentalist strategies have alleviated the tension between intrinsic and instrumental value by commodifying that which had been understood as an intrinsic value. Debt-for-nature swaps exemplify this strategy (Luke, 1999) wherein third world nations are offered national debt alleviation in exchange for conservation programs initiated in their home states. Another instance of this sort of commodification of nature's intrinsic value can be seen in TNC's initiatives to purchase and privatize land so that nature is sold in order to be saved (McAfee, 1999).

The CCLFMC offers an alternative to debt-for-nature swaps and land privatization, although they have benefited from funding stemming from a debt-for-nature swap (Shandra et al., 2011). In this case, and in ICDPs more broadly, there is a strong emphasis on community development and poverty alleviation. Therefore, the emphasis on intrinsic values seems to take a secondary role, whereas instrumental values are leveraged to present economic benefits pitted

against bauxite mining. A 44 year old woman working with TNC addresses these issues during one of our interviews in the following:

Bauxite Mining was the highest ranked threat and I think that is important. In writing up any project for Cockpit Country activities, this was something you had to always to show, what was it that was a threat, Bauxite Mining and how then were activities that you supported, were not only mitigating, you're not really mitigating this threat because the mining act supersedes all of those, so if they decided to come in and mine, the only thing that would stop them was probably public outcry at this point, because we were not able to quantify the value of the resources, you know, what was the value of the species that were there versus aluminum.

However, an examination of the economic potentials of Cockpit Country outside of the mining paradigm presented a series of possibilities for economic valuation through the creation of projects that were intended to provide employment and sustainable resource use by presenting Jamaica's primary asset (nature) to one of the leading revenue generating industries (tourism). This highlights one of the predominant contradictions of ICDPs, that in order to save nature, they are charged with valuing it in terms of the dominant political economy, creating commodities out of the thing that they argue should remain pristine and untouched.

To develop an understanding of how a broader value set may be applied to the forest, I will borrow from Baycan-Leven and Nijcamp's (2005) typology of values which include: ecological values, economic values, social values, planning values, and multidimensional values. Briefly, ecological values concern a more intrinsic value base, such as biodiversity and aesthetics; economic values are based on market value, i.e. instrumental values; social values are grounded in culture, history and recreation; and planning values concern, in the context of Cockpit Country, the development of various locales for ecotourism. These values combine intrinsic and instrumental values, and multidimensional value is combination of these various

value sets, with an emphasis on science and policy, e.g. biodiversity research and use. Using this as a framework, I will begin by describing how the environmental “values” of people living in Cockpit Country were challenged and influenced by those in the middle sets, as well as by people in the more powerful institutions associated with the LFMCs—TNC and USAID.

The LFMC presents an excellent example of the tension between these value sets, which is largely governed by the differentiated views of the people participating in these programs and the broader rural communities of Cockpit Country. To the credit of the Cockpit Country Stakeholders Group, the necessity for a broad consideration of value sets argued by Clark (2011) was thoroughly embraced. Consider the following excerpts from environmental education literature developed by the Windsor Research Centre with funding from the Protected Areas and Rural Enterprises (PARE) project.

- * *Human Health - Most of the medicines we need are derived from nature.*
- * *Business and Agriculture - Food crops, timber, dyes, paper, construction materials, rubber, oil, furniture and craft items.*
- * *Value of Biodiversity - Biodiversity is important for aesthetic purposes, fosters leisure activities like hiking and bird watching, and has inspired artists, writers and musicians. It can be argued that biodiversity has an intrinsic spiritual value and should be conserved for that reason alone, and not solely because of its usefulness to mankind.*

This environmental education literature clearly takes a broad consideration of values. It and the LFMC project more broadly certainly acknowledge the ecological, economic, social, planning, and multidimensional values laid out in Baycan-Leven and Nijcamp’s (2005) typology. The LFMC environmental education literature presents instrumental values that people place on nature in forms of business and agriculture, and these economic value sets have been pervasive

throughout the history of agricultural production in the forest-fringe communities of Jamaica. This literature also points to medicinal practices, which have antecedents in Maroon history. In this culture, the forest has long had an important role in providing medicines, which are inaccessible for many people in Cockpit Country through the dominant medical establishment. For example, one gentleman who is a direct descendent from the Maroons of Trelawny Town, now Flagstaff, said, “you find medicinal plants, find a lot of medicinal plants. Also the carcoon [*Fevillea cordifolia*], that is the largest pod in the plant. The maroon use it also to disguise them self. If you are lost in the forest you can also use vine, you can get water form the vine.... You get fresh air from the forest, the main thing.” This mode of thought concerning forest resources amongst the rural population, which fits in the typology as a social value, was pervasive in Cockpit Country. The people there depend on forest resources to support their livelihoods, from everyday drinking water to medicinal plants.

Taking this analysis further, it’s critical to note that the values depicted in the CCLFMC environmental education literature includes the “value of biodiversity,” which is clearly the most important value to those that are on the environmental protection side of the research and NGO participants. This interesting point suggests the need to identify the varying value sets across the diverse range of people and organizations participating in the LFMC. What prior literature seems to have ignored is that those in the more powerful sets, very much like those in the lower sets, are not homogenous groups. Therefore, I will now situate these differentiated viewpoints according to social group, which here reflect, in part, the class system of Jamaica, whereby the rural poor and urban middle will be represented.

While several of the people of authority in this project lived in urban areas throughout Jamaica, many FDJ employees and WRC and STEA representatives lived in Cockpit Country. Let us consider their views of nature, beginning with a couple of examples from the urban set of FDJ, TNC and USAID. The first excerpt is from an interview with a man of approximately 50 years of age working with FDJ, the second is from an interview with a 45 year old man who works with USAID in Kingston, and the last is from an interview with a 44 year old woman working with TNC.

I like the serenity, you know, being able to go in some areas you, you, I never get tired of the wonder of the natural surrounding, trees, look at the multiple systems that are there to support them and so forth. I enjoy being out in the, I said serenity, right? Just enjoy the ambiance of the forest and some of the scenic areas, they are breathtaking areas. And Cockpit Country, it is a contrast around, you have some of the areas around it and in it that landscape just keeps changing, and you get a wonder. It's not something that you get tired of seeing, even though you go back to the same place sometimes over days, it still has the allure of something that is a wonder of nature. I just love it!

I just like the trees, like um, trees and the bush. It has a different feel. While I might not be willing to go live in the country, I like visiting. They have different feel and smell. You just run up and down and the rivers and that. That opportunity is not in Kingston. You have class [speaking of childhood] and you look forward to whenever you go the country. As you grow up, it never leave you know. If you interested in a sort a thing you no leave. So, I grew up always life and as a job I do not like desk job. So even though this job generally is a desk job, I be sure I not at a desk [laughs]. You have to have a flexibility. So I make sure I go out everyday or every week. My water boots in my car, my jacket, everything, and gone. I am still a forester, but that doesn't stop me from going in the field.

The Blue Mountains as well as Cockpit is a very serene....the beauty of Jamaica throughout, no matter which point you're at is so different. Blue Mountains has a sort of, well, the higher elevation that you get to, you can be in a mist now and then the sun comes out and it mists over again. It's really quite an experience. That's different from Cockpit because, in Cockpit, there are downpours, not

misting, it's gonna be a torrential rain at any time, although you can hear it coming. You know based on a pattern and in a minute you'll be soaked straight through. Really, really different topography, both really breathtaking and beautiful. The great part about it once you start getting into the field then you kind of resent being in the office.

These brief narratives represent an idealized and fetishized notion of nature. Consider Smith's words (1996), "an inevitable result of the emergence of a popular environmentalism is undoubtedly a certain fetishism of nature." That is, through social processes, a reification of nature emerges in the process of protecting it, whereby those that depend on nature for their survival are ultimately alienated from it. In this context, the laborer is estranged from using the things produced through their own labor. The production of nature in this case comes from varying viewpoints. Let's consider the first statement. In this case, there is a clear reference to the intrinsic values of nature; the individual is attracted to the "serenity" of the place. Kaplan and Kaplan (1989) have done extensive research concerning people's landscape preferences, and, while the Kaplans's work was based in the U.S., the expansive landscapes of Cockpit Country do seem to fit the model of those preferences, which strikes stark corollaries with my work in Jamaica. Some of these include gateways and partitions, which provide a way to orient people by providing a view into the next setting; trails bring people into contact with nature and provide a sense of security; views and vistas reveal the landscape, where Kaplan, Kaplan and Ryan (1998) argue that trails are places where people become cognitively engaged with nature. Compared to areas of urban Kingston, Cockpit Country is quite serene; it affords an engagement with nature per Kaplan and Kaplan's thesis on landscape preferences, which poses a striking similarity of landscape preferences between people living in the U.S and people living in urban Jamaica who work in the area of environmental conservation. However, concerning this

analysis, let us consider this reification of nature in conjunction with the remaining two narratives. “While I might not be willing to live in the country, I like visiting.” This respondent, as with the others living in urban centers, viewed Cockpit Country as a place to get away to for a short time. They enjoy the modern amenities that are available in the urban areas, and see Cockpit Country as more of a tourist destination. This notion of the intrinsic value of Cockpit Country as a place to get away from the day-to-day grind of urban life feeds directly into the LFMC initiatives around ecotourism fueled by the people in the brown middle class. This intrinsic value set takes on more of the seemingly intended definition of social values--recreation and the like. To this group of people, the forest is a space and place of conservation and recreation, which supplants their notion of valuation within the context of sustainable practices in the shadow of bauxite mining.

The Value of Water

To extend my analysis of how people produce their values of nature in Cockpit Country, I will consider specific forest resources. As I have noted, the people of Cockpit Country are highly dependent on forest resources for their survival. With a lack of water infrastructure in Flagstaff and Top Trelawny, many people place 50-gallon drums around their dwellings to collect rainwater. In Bunkers Hill, with better developed water infrastructure than Flagstaff and Top Trelawny, this was less of a concern in some households, but rainwater collection was still a necessary practice for many households in the area. During times of drought, people in these communities go to local rivers to collect water for drinking, bathing and other household activities. As such, when considered in the context of environmental protection—and this issue

took precedence among the LFMC members, as the bauxite issue and a wealth of other environmental issues built up steam—one of the dominant issues concerned water. Local professionals participating in the LFMCs, namely those affiliated with the Windsor Research Centre, diligently prepared and presented literature concerning the “value” of Cockpit Country, and at the community level, one of these concerned contamination of local water systems, of which much of Jamaica is dependent on, from local practices of garbage disposal and the potential effects of bauxite mining. As residents of Bunkers Hill, Flagstaff, and Top Trelawny said,

- *“If we destroy the forest then we will destroy the waterfalls, so we wouldn’t have any water.” (EF)*
- *“Well we have a lot of rivers, which we are very blessed because we have water when there’s no water at the pipe, we go to the river.” (TF)*
- *“And the drinking water, the water come from here. Making billions of dollar. Where the return for the community, right? What’s the return to the community, nil!” (IF)*

While people do collect rainwater, there is an affinity for river water in Cockpit Country communities. Many people talk of the mineral qualities of the water, how it is fresh, and they are close to the water source. I have selected three different themes to give the reader an overview of how people “value” water.

The first and second themes are similar in tone, though the first theme was placed in the context of bauxite mining and the second in the context of drought. Across the 64 community based interviews that I conducted with residents “participating” in the LFMCs, the first theme was commonplace. Without entering into a discussion of bauxite mining or environmental protection, LFMC members would frequently speak of the environment in terms of

environmental protection, and many people indicated that they learned about these issues in more detail through the LFMC meetings. In contrast, community members that did not participate in the LFMCs spoke of the water resources as something that they were “blessed” with. As is clear in the second quote, when water sources begin to run dry, there is always the option of going to the river to collect water for the household. The use of water in the community was also drawn out in the preceding section on ‘Environment and Behavior,’ where the river was a meeting place for work and play.

What is particularly interesting in these three quotes, though, is the shift expressed in the third one. LFMC members, in stark contrast to those who had never participated in the organization, began to think of Cockpit Country water sources in terms of instrumental value (Freeman, 2003); that is, they sought a way to commodify the thing outside of well-established agricultural practices. An overwhelming concern with bauxite mining was not that it would strip the Cockpit of vital “natural” resources, but that the benefits would not come to the community, but go instead to profiting international corporations and the Jamaican government. This frustration was commonplace, and the third quote illustrates the concerns of the LFMC members who began to see that there were several resources in Cockpit Country that economically benefitted people outside of the area, while the people of Cockpit Country have been excluded from such benefits. Given the lack of opportunities for the realization of economic values in the LFMC, the “participants” began to recognize that they were gradually being led into a paradigm not unlike bauxite mining, where people in bauxite areas rarely receive any benefit from the companies occupying nearby lands; instead, the local residents would be exposed to polluted air and water systems as a result of mining processes. However, in the context of the LFMC, some

members began to recognize that their services as voluntary forest guards were being appropriated in the realization of profits for those outside of Cockpit Country; in this particular example, those profits are being realized by The Water Commission of Jamaica.

In this context and the LFMC mission to provide economic alternatives to bauxite mining, many LFMC members began to think precisely in terms of the tension between commodifying nature and how this process benefits people living in sites of such commodification, or not. This is not to say that products from Cockpit Country had never been considered as market commodities before the LFMC—as noted throughout this thesis, the area is full of agriculture and forest products—but the LFMC trajectory clearly began to incite new modes of thinking concerning the expression of social relations through the production of market commodities outside of agricultural production. That is, in the context of water, the appropriation of people living in forest-fringe communities as forest guards, in essence, proposes to reproduce the dominant paradigm of bauxite production, whereby community members receive little benefit with respect to resources extracted for the benefit of people living outside of the area.

Food Security and Family Land

Another striking value of the forest to the people of Cockpit Country was as a place to return to in hard times. Many people living in Cockpit Country sought refuge in the area when economic circumstances in the urban areas were not favorable, and they had few options for making a living. In Jamaica, this refuge is commonly found on family land, which is land owned by family members who do not have any form of individual claim on the land. It is a shared

space meant for families to use in hard times and otherwise, and many fell back on farming when all else failed. Money is to be made in the cities, but cities were seen as unforgiving places that were difficult to navigate in terms of finding viable employment. The rural and forested areas offered a safety net that could not be found in the urban areas through spaces and places that represent family land. A stroll along the roadside in rural Jamaica is quite telling in this respect—there is an abundance of fruit trees in the rural and forested areas, and passersby are typically welcome to pick from the trees on family land, and often on private lands, too. Further, the wealth of fruit trees in the forested areas of Crown Lands presented people with a free source of food.

These notions of the forest as a food source and Cockpit Country as a place to find a living in hard times were consistently mentioned by people participating in the LFMCs and Cockpit Country community members. I spoke with community members about the tension between economy and environment, typically in terms of development projects such as bauxite mines, as well as a series of other development possibilities. One thing to note is the concern for the effects of large-scale development in the area and its effects on the forest. The people I spoke with overwhelmingly and almost unanimously said they would prefer to protect forest resources, even if it meant that the tension between conservation and development would affect their own economic circumstances. As one of the interviewees said,

I have to survive from the environment, not the economy. I can run into Cockpit Country without a pot or a pan, I can get inside here find bush yam, dig a hole in the earth, put a leaf in the earth, pour water on the leaf, put another leaf on it, spread some earth on it, light a fire on top of it, and cook some food right there and survive there. Now what I have done is to prove to you that what I did has nothing to do with the economy.

This statement veers away from both instrumental and intrinsic valuations of nature, though it may be argued that it falls closer to a more intrinsic value set as it refers to forest products as use-values not commodities. This is very much what Swart et al. (2001) referred to as an anthropocentric view, which it may be. However, Marx's notion of use-values—in this case, to satisfy basic needs—provides a neat basis for considering the value of forest products to people living in forest-fringe communities. However, most of the literature fails to characterize forest values in the context of the communities that depend on them most (cf. Lee & Han, 2002; Turner, Marse-Jones, & Fisher, 2010; Buyinza, Bukenya, & Nabalegwa, 2007; and Potschin & Heines-Young, 2011). The literature that considers the forest as a source of food points more toward ecosystem services, which concerns society more broadly as opposed to the needs of forest-fringe communities (cf. de Groot et al., 2002; and Swart et al., 2001), and people's willingness to pay for these services (cf., Bogale, 2011). Yet, for the people of Cockpit Country, the forest is a thing that takes on value in and out of the broader political economy. In one sense, it is a space and place where one may carve out a living, whether in hard times or otherwise. It also affords the possibilities for reestablishing oneself in the political economy, i.e., forest products may be commodified by those living in forest-fringe communities as means to find economic security. However, at a base level, people's concerns for the direct use of forest resources took precedence in Cockpit Country—a concern that may be considered anthropocentric (Swart et al., 2001). Yet, Swart et al. argue that the ethical perspective of anthropocentrism is largely located within the phenomenon of intensively managed areas. In Cockpit Country, the linkage between anthropocentrism and intensive management is not necessarily a universal theme. In fact, while intensive management occurs within the farming

context, which provides food security, this is not the case within the forested areas, which also provide a form of food security.

Trees for the Tomorrow - Retirement and Trust Funds

Another type of value representation and understanding of nature exhibited in Cockpit Country was one of investing in nature for the future—specifically for future generations. One project introduced by the FDJ concerned reforestation. However, as the majority of deforested lands were privately owned—Crown lands tended to be in the densely forested areas—the FDJ started offering reforestation incentives to the landowners in the form of education, seedlings, and, with funding from USAID, stipends to help procure assistance in the process of reforesting their lands. The reader will recall that similar programs were developed during the colonial era. For many, this became a project of investing in the future. Trees obviously take several years to mature, but several of the LFMC participants saw this as a type of retirement fund or a source of revenue for their children. Of course, this type of program benefitted people with land holdings more than those without; however, community members were also briefly employed in the process, which did work to distribute the benefits to some extent. The following excerpt from an interview with a 54 year old man participating in the LFMC in Bunkers Hill illustrates this point.

Private planting is through the Forestry Department where farmers have learned [about] and plant trees...plant trees, and they give you about 250 to 300 trees at a time. I've gotten three lots like that already. So it's good, 'cause when you basically do it as a farmer, you're planting for your future, for your kids. Jamaican um, culture um, talks about planting um, naval, naval string trees, naval string [see below for an explanation of naval string trees and their cultural significance] they call it, and they um, planted trees in those days, the older farmers, who are dead now (most of them) planted trees for their kids. They have a kid, huh? What it did was they planted a couple of trees so when that kid gets to 21 or something, those trees are there for him to reap and build, and build his

own place. It's a very fantastic idea. Now think of you planning now for the future now for your kids to build hotels. Not just homes but hotels. Because you're planting more, you're planting a lot of trees, you're going into it big time. You're planting 5,000 trees, see if how it's going to go, for the future. That's good. It's good. If I can reach that goal, but yeah, um (laughs), I'm trying to get there.

If we are to put this practical use of nature in the terms of Kellert's typology of attitudes toward nature, the narrative takes on a tone of utilitarianism, one of seeing the use of nature in our everyday lives (Kellert, 2002). However, there is also a harmony found in this environmental attitude that is deeply embedded in the culture of farming. Several of the farmers with whom I spoke said they do not feel that they have any form of control over nature, but work with nature to produce their everyday livelihoods. Yet, as a value set, this particular approach falls into the paradigm of instrumental use values, i.e. things that may be commodified, in this case for the benefit of future generations.

However, tree planting in Jamaica takes on a more nuanced significance than government supported tree planting programs centered on economic gain. For example, as referred to in the previous interview excerpt, there is a fairly common practice in the rural communities of Jamaica, a tradition that follows from West Africa, where a newborn baby's umbilical cord or "naval string" will be buried with a tree sapling planted over it—most often a coconut tree. MacCormack and Draper (1987) argued that this practice "roots people in a sense of social continuity, a sense of place, and a sense of self." Indeed, people would frequently show me where their naval string was buried and reflect on its significance, as they would with various elements of the forest. In Jamaica, the land of wood and water, trees are a significant symbol of family ties, future generations, and opportunity. Another example of their significance stems from the Maroon and British Peace Treaty of 1739. Some claim that the treaty was signed at the

Kindah tree in Accompong, which is also a symbol of community cohesion. The Maroons of Flagstaff, formerly Trelawny Town, argue that the signing took place at the base of a cotton tree in an area called Pettee River Bottom. Wherever it was, these narratives suggest the cultural significance of trees in Jamaica.

A brief consideration of some of the narratives shared in this chapter further illustrates this point. Recall James from Bunkers Hill, who saw the products of fruit trees as a thing to be shared among people and animals; Mr. and Mrs. Han memorizing the location of all the fruit trees their parents had planted in the forest, which ultimately designated their play spaces and places to stop and eat; or the alternative uses for the bitter damsen, such as attracting birds and providing a canopy to protect their plots not being used in agricultural production. Trees take on great significance in Jamaica, but do reforestation programs that operate largely outside of these interests promote any sense of stewardship? My research suggests that they do not. It was widely recognized that these programs would benefit community members in the short term, yet the government would be the inevitable benefactor. Recall that 70,000 small-scale farmers cannot produce a title to their lands, and thus would not benefit from these reforestation programs. However, those with legitimate land claims—a relative minority—would benefit. Further, these programs have a tendency to promote the individualism that became prominent among small farmers in the post-emancipation period (Weis, 2007) as opposed to the cultural significance of trees or the forest, which would build a sense of community, place and self (MacCormack & Draper, 1987).

Conclusions

In this chapter, I have drawn on mixed methods to document agricultural and environmental practices and develop a typology of land use in Cockpit Country, analyze people's environmental attitudes and values grounded in Kellert's (2002) typology of attitudes toward nature and Kaplan and Kaplan's (1989) work concerning landscape preferences; analyze people's connectedness to nature (Mayer and Frantz, 2004) as a way of understanding their support for and participation in environmental programs; describe the people in the middle sets who live in Cockpit Country and participate in the LFMCS; and address how people in the rural communities, the middle sets, and in NGOs and funding agencies value nature in Cockpit Country.

In the context of people's attitudes toward nature and landscape preferences, the pervasive utilitarian attitude may be seen as a negative attitude; however, this utilitarian perspective was grounded in people's everyday environmental practices as was indicated in the course of my participatory observation and interviews. While many people focused on the practical use of nature, they also spoke of how nature affords their survival and ability to provide for their families. Nature is frequently spoken of in terms of what Kellert calls ecologicistic and naturalistic attitudes. The people of Cockpit Country have a profound understanding of the environment as a system, and their place in that system. They understand that when there is drought, they may starve, and that when there is a productive yield, they, as well as birds and animals, will prosper. The mosquitos, which many people complain about, are referred to as part of a system from which they too benefit. Simultaneously, the expression of the naturalistic attitude is clear in people's propensity to look to nature in times of stress, a place to go and relax.

Therefore, I argue that a utilitarian attitude in Cockpit Country is an expression of one's place in a system, a part of nature, an ecologicistic attitude produced through the laborer's active engagement with the environment.

This argument was reinforced by the survey, but with similar limitations to an application of Kellert's framework, in that these approaches do not consider social context. However, when triangulated with interview and participant observation methodologies, the data can be quite revealing. The survey showed that rural people in Cockpit Country have a deep connection with nature, but also showed that many people feel that they are above nature, or more important than nature. Here again the qualitative data provided a means of understanding why these attitudes coexist. People working in NGOs and funding agencies, as well as people in the middle sets more broadly, identify rural residents as having a predominantly utilitarian attitude concerning forest resources. The predominant misconception on the part of people in the middle sets that peg rural communities as being environmentally destructive is that people in rural communities, through their "utilitarian" practices, are reinforcing an ecologicistic attitude toward and strong connection with nature. Further, people's livelihoods are being pitted against the health of the forest—the medium from which many people in Cockpit Country frequently subsist and survive. Much of the rural population in Cockpit Country indicated that restricted access to forest resources was a direct threat to their own survival, which points to one of the tensions between conservation and development in Cockpit Country that is intimately linked to race and class.

Yet, the mixed methods approach that I took in my fieldwork revealed that people in rural communities feel in community with nature, and understand themselves as very much a part of nature. For example, in discussing their childhoods, many mentioned how they and their parents

were part of producing the forest through their work and play activities, and their active imaginings in recalling these activities from childhood. These are spaces that are integral to every part of their lives, yet people living in forest-forest fringe communities, who rely on forest resources to some extent, are one of the groups targeted by NGOs and government agencies for their unsustainable activities. And some of these activities are unsustainable, such as broad-scale yam stick harvesting; however, the communities that I worked in did not use yam sticks in this manner. It was the larger farms found in Top Trelawny who used more yam sticks, and these farmers tended not to participate in the LFMC program as they were occupied by their work at the LFMC meeting times.

These broader environmental connections and concerns were also clearly expressed through an analysis of how people in the various sets “value” nature. It is quite certain that people in Cockpit Country have a broad value set; one that is expressed through the values promoted by the LFMC, but also, and perhaps more importantly, values that stem from the everyday environmental practices of people in the rural communities. And, as indicated above, the values that the LFMC promoted concerning forest resource use and biodiversity were to some extent embraced by the rural residents. However, awareness of these issues and their path to the extension of intrinsic values, at least among LFMC members, extended to an awareness of the corollaries between bauxite mining and conservation practices; that is, an awareness of the lack of benefits for the people participating in LFMCs. In essence, the instrumental value of conservation practices became quite apparent to some of the LFMC members.

Cockpit Country is a place where many people who practiced small-scale farming in Jamaica were pushed to the margins during the colonial period. With the more arable flat lands

on the plains being dominated by wealthier landowners in the planter class, the landless population sought out spaces in these “backlands” where there was little interest on the part of the colonial government. That is, until these lands were appropriated for timber and fuelwood for the railroad and other industries in the late 19th and early 20th centuries, as well as for land resettlement initiatives on the part of bauxite companies from the 1960’s. It is clear that access to arable land and resources is a pervasive theme throughout the history of Jamaica (see chapter 3), yet the small-scale farmers have been continually pursued, through forest and land use policies (see chapter 3), by conservation, development, and integrated conservation and development programs that threaten their access to land and resources. As such, while it is clear that the people of Cockpit Country have a profound and multifaceted connection with nature—a connection developed through a history of marginalization and forest resource cultivation—it will be instructive to consider how the paradigm of access to land and resources for a largely landless rural community factors into the development of integrated conservation and development projects that demand their time, labor, and, quite curiously, their land.

Chapter 5: People, Conservation, Development, and Cockpit Country

Most sources of ecological stress are associated with resource users: farmers who convert natural forest to agriculture and use poor tillage practices; yam and fish-pot stick harvesters who collect up to six million stakes annually from the natural forest understory; loggers who, legally or illegally, but certainly without reference to sustainability, cut timber for the furniture factories and other customers; cattle ranchers whose animals pollute water courses; guano miners whose activities destroy the biota of caves; and tourism businesses who exploit Cockpit Country in the absence of a clear understanding of the region's carrying capacity or the need to respect it. There is also the potential threat of bauxite mining which would destroy the valleys where the bauxite ore is found, permanently destroying the habitat of many of the endemic species in the forest in the process. (TNC, 2007)

Conservation and development projects throughout the global south have taken on a distinct character of laying blame with “local” community livelihood practices when it comes to unsustainable resource use, and this paradigm is pervasive in Jamaica (Mistry, Berardi, and McGregor, 2009). I have started with this brief quote from The Nature Conservancy (TNC) as a way of illustrating the negotiated set of environmental concerns that the Forestry Department of the Ministry of Agriculture (FDJ), TNC, and USAID carried into this project along with some of the Cockpit Country based organizations they work with, e.g. The Windsor Research Centre and The Southern Trelawny Environmental Association (see chapter 4). The language here, while updated to reflect contemporary concerns, takes on the distinct character and language expressed in several of the archival documents reviewed in chapter 3. It is a racialized language of environmentalism that was all too common in the colonial cum imperial era—one that is being appropriated in the context of sustainable development (Escobar, 2009).

In this chapter I will build on the description of the Cockpit Country Local Forestry Management Committees (CCLFMC) from chapter 1 and 4, and analyze the process by which

they were developed, how they are structured and the political and economic inroads to their formation. Following this I will describe the objectives, practices and outcomes of the LFMCs. In the third section of this chapter, I will build on the prior sections with an analysis of the types of problems and potentials that were encountered during the LFMC operation years 2007 to 2010. This section will provide a situated understanding of the current case study in relation to the language of sustainable development. My objective is to provide an in-depth critique that is often ignored in similar case studies. While reference to the power issues that are often linked to integrated conservation and development projects (ICDP) in the context of sustainable development is pervasive in the literature (cf. West, 2006), there is little work that considers the nexus of this language with the practice of ICDPs, as will be exemplified in the final section of this chapter.

Democracy, Clientelism, and Local Forestry Management Committees

With a description of the CCLFMC structure developed in the introductory chapter (chapter 1), it will be instructive to analyze the political formation of the organization. To contextualize this, I will include a brief description of the Jamaican political system, which has distinct corollaries to the CCLFMC structure draws. It has been argued that political systems in Jamaica are immersed in the exchange of economic and social favors in return for political party support among various local populations (Stone, 1980). While the idea of offering economic incentives and/or development is nothing new concerning ICDPs (Schmidt-Soltau, 2004), this form of clientelism takes on a distinct character in the Jamaican context. This type of clientelistic system is historically rooted in the rural areas of Jamaica, whereby a patron/client

system has been developed between those who have access to resources and those seeking access—predominantly landowners and small holders. Such clientelism was prevalent between the Maroons of Cockpit Country and the British—following the peace treaty of 1739 there was “no clear precedent or model for either side to follow,” for the British did not have the means to enforce colonial law in the Cockpit Country, so they made material offerings to compel Maroon loyalty and adherence to their treaty (Kopytoff, 1979). Stone (1980) describes the structure of the clientelistic system as a one of social relations produced among patrons, brokers and clients. The patrons are at the top of this system, controlling access to social and material resources. The brokers act as “intermediaries” between the patrons and, in the context of the LFMCs, the small-scale cultivators from which the patrons wish to draw support. Clientelism was introduced in the LFMCs, with small incentives for attending the initial meetings, which came in the form of a hot lunch, to promises of community capacity building and employment. While this might seem to be a fairly innocuous offering, it was rather telling when a Small Business Association of Jamaica representative said, “they [the community members] wouldn’t come otherwise,” exclaiming in dismay that, “they don’t care about environment.”

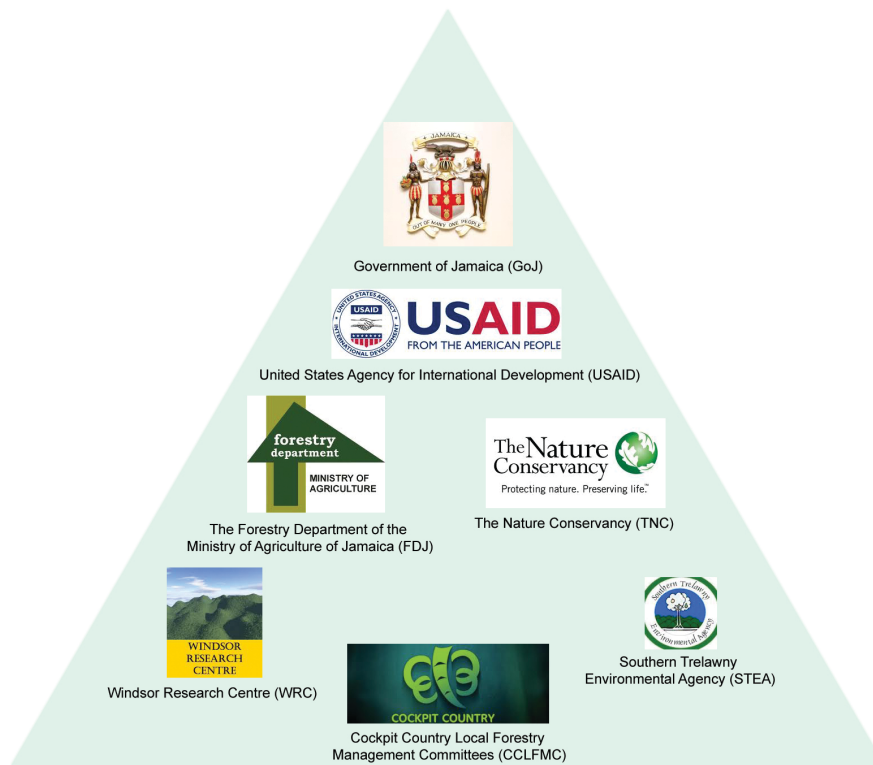


Figure 12: Power geometries of the central organizations participating in the Cockpit Country Local Forestry Management Committees.

Using Carl Stone's (1980) thesis on democracy and clientelism as a guide, I will analyze the formation and structure of the LFMCs to highlight the problems and potentials of integrated conservation and development in Jamaica. Building on the history of forest legislation and use from chapter 3, which was hinged on inequitable access to land and resources throughout the development of the post-emancipation and post-independence small farming class, I will describe and analyze the relationship between historical policy and current policy and practice with respect to integrated conservation and development. Further, through the ethnographic view of people's current environmental practices from chapter 4, which is largely a result of the history of small farmers seeking a livelihood for their families, I seek to link the historical and

current practices of small scale farmers with a telling of how integrated conservation and development in Jamaica ultimately comes to loggerheads with post-emancipation farming culture in Jamaica. It will also be instrumental to consider the social relations among LFMC participants in the context of power, for which Stone's thesis is particularly useful.

Concerning the varied groups involved in the LFMCs, power relations certainly are negotiated among several actors. In this case USAID, TNC, and the FDJ take on the character of the patrons. These organizations, with the exception of the GoJ, hold the maximum perceived access to resources. USAID, the main funding organization, who ultimately were looking for ways to reinforce their significance in Jamaica broadly speaking, is at the top of this hierarchy, a sort of "maximum boss." Secondary to USAID is TNC and FDJ, who took on a more direct role in planning and implementing the LFMC projects on the ground. As such, they are the organizations that have direct access to the valuable resources in ICDPs, e.g., political influence, knowledge, and capital. In addition, as the forest's main legislating body, the FDJ has the controlling legal interest in forest resources, those resources that are paradoxically most directly accessible to the broader population of Cockpit Country. According to Stone, the patron class takes on an elusive character in that they do not hold a formal elected position or place on the ground; therefore, their role in the eyes of the client class, is somewhat perplexing. In the current case study USAID, TNC and FDJ outsourced training and workshops to outside organizations, yet showed up to meetings and events to act as figureheads—almost heads of state, whereby the patron class takes on the roll of chief public representative. In this context, the patron class garners and strengthens broad scale support by avoiding direct action and intervention in

democratically elected groups on the ground that report to the patron class; that is, conflict is distributed among the broker and client class as will become apparent in the text.

In agreement with the clientelistic structure of the Jamaican party politics, the patrons at the top of the network demonstrate varying interests and loyalties to numerous political networks. To begin, I will briefly review USAID's interest and broader mission in Jamaica, which is to provide country assistance in key areas to help curb some of the national issues of concern to the Jamaican government. At the top of this list was the GoJ's request for assistance with crime, economic growth, HIV/AIDS, and education. While all of these issues are related on multiple levels, it will be critical to unpack USAID's concern with these issues to unpack their motives for participating in said environmental projects. According to the USAID Country Assistance Strategy (USAID, 2009), these issues are being addressed with a focus on providing viable revenue generating enterprises to help deal with these issues while also indirectly curbing illegal immigration and drug trafficking to the U.S. This revealing approach demonstrates a lack of direct interest in developing the broader economic interests of Jamaica, which shifts to the political interests on the part of USAID and the US government. "Due to the economic dimension of community safety and security and the direct relationship between youth employment and violent crime, the project supports micro-enterprise to create job opportunities through technical, financial, and policy support to private and public sectors" (USAID, 2009). As such, the approach of funding micro-enterprises through the LFMC initiatives directly addresses USAID's broader country mission while also addressing the social and environmental concerns of the GoJ and UNEP programs.

USAID also has a vested interest in curbing political corruption. USAID sponsors programs to address rampant corruption at the level of party politics in Jamaica. “Over time, differences between parties become much more pronounced in personality and organizational culture than they do in terms of ideology and policy. This greatly disposes an otherwise competitive political system to act in clientelistic ways, reinforcing, rather than undermining patronage and collusion” (USAID, 2009). Stable relationships between the GoJ and the US government provide pathways for the expression of the latter’ interests through the production of an agreeable political climate between the respective governments and institutions, which is the broader mission of USAID—to promote the image of the US and facilitate amiable relationships with international trading partners. Ultimately, given USAID’s diminishing role in facilitating the relationship between the U.S. And Jamaica, their motives were thoroughly grounded developing a means for the facilitation of international relations.

TNC, on the other hand, is focused on environmental issues and so highlights the livelihoods of people in and around forests that have been threatened, thus rehearsing an international conservation discourse around harnessing of resources and disenfranchisement of people (Agyman, 2005; DiChiro, 1996 ; Pulido, 1996; Springate-Baginski and Blaikie, 2007). However, TNC, as will be explained further in the following section, has within the last 12 years adopted more participatory forms of conservation that fit neatly with the practices of integrated conservation and development, as well as the call for community participation stemming from the 1996 Forestry Act and the Forest Policy of 2001. However, at the end of each fiscal year, TNC garnered 23% of all funding in the CCLFMC project for their role in management and facilitation. In this context, greater expenditure in a short period of time would guarantee

maximum profit for TNC. This may come as little surprise, as it is well known that there is “big money to be made from ‘preserving’ nature” (Katz, 1998). However, at least in the Jamaican context, clientelism affects the role of NGOs and international donors. In this particular case, TNC had a long-standing relationship with USAID that had been built on TNC’s role as a leading international environmental NGO with considerable influence in the international conservation arena, which has become a major profit generating industry (Katz, 1998; Luke, 1997). As such, TNC’s loyalties to USAID and the GoJ are economically motivated in nature. However, their greatest loyalties may be to the tourist industry of Jamaica, largely governed by the system of super clubs (resort clubs) and hotels that occupy the vast majority of the more desirable areas of the northern coastline, and who seek to find safe and viable tourism ventures for their guests. For the Jamaican super clubs, nature is a major attraction to their guests-- tourists come to enjoy the clean, sunny beaches, experience the marine nature, and visit nearby “nature” areas like Dolphin Cove. In turn, these super clubs provide funding for environmental NGOs to help preserve the places of interest to their guests. Therefore, TNC demonstrates strong loyalties to the tourism industry.

Finally, the FDJ has the closest social and political ties to the CCLFMC project. They are caught in the nexus of promoting environmental conservation practices in Cockpit Country while attempting to avoid directly interfering with the processes of profitable extractive industries, e.g. bauxite mining. They have developed close political ties in several communities of interest throughout the history of forest use from the late 1800s (see chapter 3 for some examples). As such, they have developed a socially clientelistic relationship with several Cockpit Country communities, whereby concessions are made concerning resource use as long as community

support is offered. While this will be explained further below, one brief example concerns increased access to forest resources through adherence to FDJ forest use guidelines. Further, the FDJ has several extension officers living throughout the communities of Cockpit Country who have close familial and community ties in and around the areas where they work. Their community loyalties frequently take precedence over their professional ones. A key example of this issue can be seen in the LFMC members' frustration over who gets work through the FDJ. LFMC members were promised priority when it came to forestry work, but these jobs were frequently given to people with whom FDJ officers had long standing relationships.

Politically speaking, FDJ's ties to the Peoples National Party (PNP) were clearly demonstrated as Portia Simpson-Miller's 2006-2007 administration had assured the CCSG that mining would not take place in Cockpit Country; however, growing concern came about since the JLP regained the Prime Minister seat in 2008 following a thirteen year absence. FDJ's party loyalty is historically reinforced through the association of FDJ initiatives during Manley's socialist project in the 1970s, where forestry and conservation initiatives received increasing attention in policy and practice (Mistry, Berardi, & McGregor, 2009). Since 2008, several changes have been imposed on the FDJ, including its reestablishment as an executive agency in 2010, that, while operating outside of the direct control of the GoJ, has been repositioned as a performance based institution. In this respect, the FDJ has become the main agency responsible for the granting of licenses for ecotourism ventures and use of trails and roads, organizing the "legitimate" sale of forest products, and the restoration and management of recreation and heritage sites. This in turn points FDJ loyalties back to international funding agencies, who, as of 2010, have come to finance many of FDJ's projects, including the LFMCs. While FDJ widely

accepts their relationship with external funders like USAID, they are often skeptical of these organizations in that their initiatives are frequently reshaped by the organizations that offer financial backing. The shift to a performance-based institution also firmly supplants FDJ's political interests in the provision of opportunities to generate additional revenue through its reestablishment as an executive agency. This recalls the "bailiff" paradigm that was introduced in chapter 3, whereby forest guards cum bailiffs were expected to subsidize their incomes by partitioning and renting out Crown Lands (Hooper, 1886). As a reminder, this process was fundamentally contradictory to forest protection in the colonial era in that promoting forest conservation stood in direct tension with forest based agriculture. However, it is critical to note that funding from USAID and other international donors cannot be funneled through FDJ; funding must be channeled through an NGO or CBO in accordance with USAID guidelines. Therefore, FDJ's strongest political and social ties may be with the communities in which they work. They are dependent on the formation of LFMCs to attract funding from international organizations, which, in part, support Jamaica's forestry policies.

This tripartite formation of the patron class takes on the distinct character of the Jamaican political system, as each of the aforementioned organizations competes for the political support of the communities they are working in as well as support from the GoJ and other tangentially related organizations, such as The Small Business Association of Jamaica. The most elusive of the organizations is USAID, who took on more of an investment role in this particular project, whereby their role in the CCLFMC project was viewed uncritically by the participating community members of Cockpit Country. Clientelistic relations existed between the USAID, FDJ and TNC in the patron class and the LFMC and community members of the broker and

client classes. As such, support from these second and third tier groups would provide much needed resources for the FDJ to carry LFMCs into future iterations funded by USAID or other international organizations. For TNC, it meant the opportunity to subsidize their Jamaica, Kingston office, in part, through USAID, which became necessary as TNC corporate in Washington redirected funding in the Caribbean toward marine protected areas in favor of terrestrially based projects—a shift also largely fueled by the tourist industry. At the root of establishing LFMCs was the necessity of community-based support for the production of ecotourism and agroforestry enterprises. Community members were needed to provide a base for the LFMCs. This base, in turn, provided the human capital necessary to promote the projects. Therefore, FDJ and TNC competed for the support of the community members through their varied offerings; FDJ offered on the ground expertise and access to forest resources, while TNC offered community capacity building. For the FDJ, the LFMC represented a group that could attract and allocate foreign dollars, which could then be used to promote FDJ initiatives, e.g. reforestation. TNC, on the other hand, is an NGO that can direct funding through its own programs. As such, TNC also required a community base to participate in their programs as a means of attracting funding.

By structuring the LFMCs as democratic entities with elected officials, the opportunity for the creation of brokers and clients is produced and reproduced in the context of ICDPs. The executive body of the LFMCs acts as this middle tier, the group that is responsible for garnering community based political—or, in this case, environmental—support for the LFMC mission. Cockpit Country-based organizations such as The Windsor Research Centre and The Southern Trelwany Environmental Association were also treated as part of this middle set. For example,

the director of the Windsor Research Centre participated as the South West LFMC treasurer. The director also led the investigation of internal fraud, which will be highlighted later in the text. As such, the executive body had access to the resources offered by the patron class, which were offered in various forms of development and material goods and services, e.g tour guide training, business development courses, access to forest resources, small business loans, tobacco, and rum. To date, the most involved of the three locations, and the one that received the greatest direct support from the patron class, is the South West LFMC based in Flagstaff, St. James. I will use this area as a case study to further elucidate the application of Stone's thesis.

The North and South West locations were slated for ecotourism development by TNC as they both afforded an opportunity to experience the nature and culture of Cockpit Country. Both locations are historically associated with Maroon communities and resistance to British colonialism, with Flagstaff being the better studied of the two areas. However, due to disagreements between TNC and the landowners in Bunkers Hill who were propositioned to have their properties developed for ecotourism, the immediate funding and possibility for development was shifted to Flagstaff. As the majority of the ecotourism ventures in Flagstaff were to take place on Crown Lands, land leases were less of an issue. In this respect, TNC had the controlling interest in where funding from USAID was directed, which proved to place pressure directly on the brokers, with whom the potentialities of their communities' future lay, at least in the context of LFMCs. This form of clientelism governed who would benefit from the project through adherence to TNC directives and environmental initiatives. In this case, the brokers of Flagstaff were more willing to adhere to TNC directives than those of Bunkers Hill,

who were adamantly opposed to devoting their lands to ecotourism projects that would broadly benefit the LFMC.

As the “Flagstaff Heritage Tours and Trails” project began to build steam, an influx of capital was concentrated on the area. The “broker” in this case was the chairperson of the South West LFMC of Flagstaff. The area became witness to rapid development that had not been seen in the area since the collapse of the agricultural industry during the 1980s and 1990s (Weis, 2004), when bananas were their principal export. Since then, the area has been relegated to small-scale subsistence farming with small yields produced for sale. The majority of the people that live in Flagstaff rely on subsistence farming to provide their food. It is a place that receives few visitors from outside of the immediate area. Further, there is little infrastructural development. Water infrastructure in Flagstaff was eliminated in the 1980s when the GoJ was too strapped to provide these resources. In turn, the pipes that were used to develop the initial infrastructure were excavated by the local populace for sale on the metal market—a telling form of resistance and appropriation in light of GoJ divestment of infrastructure and resources in Flagstaff. Sanitation infrastructure in the area does not exist—the residents have turned to burning their refuse and dumping various items on the roadside, which is a common practice throughout the more remote areas of Cockpit Country. In this case, development was most welcomed in this monetarily impoverished, but socially and environmentally rich area.

As the patron groups were primarily positioned in Kingston, the executive bodies of the LFMCs were charged with taking the lead of local representation in the venture, which primarily fell on the shoulders of the chairperson. As the LFMC management plan was not widely accessible and a draft constitution was never developed, major responsibilities were frequently

directed to the chairperson due to the considerable confusion concerning what responsibilities the executive positions entailed. This not only directed the greatest responsibilities to the chairperson, but also routed access to the resources that were highly sought by the people living in and around Flagstaff into the hands of one person. Development was being offered in the form of an ecotourism enterprise—one that would entail several micro-enterprises including nature and heritage tourism, craft production, food production, and accommodations. Development also came in the form of constructing a visitor center on top of the local post office, the clearing of identified Maroon trails and burial sites, as well as burial sites where British soldiers from the colonial army were buried. Residents were surveyed to see who would be able to arrange accommodations for the “impending” arrival of tourists from afar. They even got a Peace Corps volunteer to assist in the project.

At the top of the hierarchy, US Forest Department consultants came into the area to assist in site identification, carrying capacity studies, and issues of biodiversity conservation more broadly. Government officials visited the area arm-in-arm with TNC and USAID delegates. Flagstaff had become such a development hotspot that tour operators and interested parties that were not involved in the project began showing up in the area to see “wut a gwaan” (what is going on), and explore the possibilities for their own ventures. In fact, this process of people seeking inroads into the development of nature tourism in Cockpit Country went so far that a self-proclaimed “Chief of the Maroons of all of Jamaica” came into the area claiming to be a representative of the aforementioned and long defunct World Bank project; however, the Bank had pulled out of Cockpit Country ten years before I met this interesting gentleman.

Moving forward, the responsibilities of facilitating this rapid development on the ground fell into the hands of the South West LFMC chairperson. The chairperson was given access to monetary resources to cover project expenses such as renovating an LFMC office organizing transportation for community members participating in capacity building workshops. This person became the singular thoroughfare to the resources and development that the community had been promised. He recruited community members to attend LFMC meetings, workshops and training sessions; bought rum, phone cards and cigarettes—valuable commodities in the these communities—for the people that agreed to participate in clearing trails and other activities related to ecotourism development; and orchestrated these activities. The chairperson also independently granted small loans to LFMC members out of funds drawn from the 1994 debt-for-nature swap combined with USAID funding. Finally, as the person that most frequently and directly corresponded with USAID, TNC and FDJ officials, the chairperson had access to information and knowledge that was not shared with the general LFMC participants; perhaps most importantly, project budgeting. In lieu of sharing project updates and executive meeting information with the LFMC members, the chairperson would sit with small groups of community members discussing the history of the Maroons and ideas for moving the LFMC project forward—he came to be seen as an educator and bringer of development. He had direct access to knowledge and resources that many of the other LFMC participants, particularly those outside of the LFMC Executive Committee, did not. For example, the chairperson met frequently with the director of The Windsor Research Centre to investigate historical events in preparation for their tourism project in Flagstaff.

The South West LFMC chairperson became what is commonly referred to as a “big man” in Jamaica, a person who has access to resources and influence over the people in their immediate surroundings. While attaining the status of a big man comes through many avenues, from heavy drinking to violence, a highly respected route comes through the use of proper English and demonstration of worldly knowledge (Whitehead, Peterson and Kaljee, 1994). The chairperson--articulate and knowledgeable—became, then, a “broker” of social and material relations between the patrons and the clients. The clients, in turn, became the base for the LFMCs--they became essentially a form of human capital that was leveraged to make the projects financially and managerially viable. They were expected to pay their membership dues in a timely fashion (500 J (\$ 5.10)/year or 100 J (\$ 1.02)/meeting) and attend meetings with the expectation of employment opportunities. What is particularly critical to note is how the creation of this politically based stratification system masks the roles of patrons and brokers in the client’s understanding of these roles. Again, as will become evident in this ethnographic analysis, the patron client system affords an illusive space to the patrons, whereby their actions are viewed uncritically and, to a certain extent, affectionately amongst the small scale cultivators (Stone, 1980). The brokers seemed to take on the most precarious role in the context of the LFMCs, as the only power, or access to resources, came directly from the patron class. However, the broker is a direct route to those resources for the broader population, and when the broker’s access to such resources falters, his position within the community is compromised. This situation begs the broader question of the ethical implementation of ICDPs in Jamaica. Without taking the broader political environment into consideration, when reproducing conditions of clientelism in the context of sustainable development, these programs threaten to further reproduce the well

established hegemonic structures of the Jamaican political machine in areas where government and sustainable development efforts were received with little interest or influence prior to the development of LFMCs.

The paradigm of the development process increasing bureaucratic power of the state has been thoroughly documented in case studies of the global south (cf. Escobar, 2009; Ferguson, 1994). In the current case study, the promotion of a clientelistic style of LFMC governance not only has distinct similarities with common political practices in Jamaica, but of development more broadly. Again, the GoJ had little power and influence over the residents of Cockpit Country. The people who live and work there rarely pay taxes and receive few, if any, social welfare or infrastructural benefits from the government. As such, sustainable development, in its current ICDP iteration of LFMCs, is opening pathways, or trails if you will, into the heart of Cockpit Country. As Escobar (1996) noted, sustainable development takes on the distinct form and character of the dominant paradigm of development—one of power relations leading to the further subjugation and disenfranchisement of the communities of concern. However, in this context, Carl Stone's thesis is quite revealing, and it becomes telling to highlight the fuzzy space between the processes of development and sustainable development. That is, a situated analysis of the LFMC program offers a more nuanced understanding of how sustainable development can produce and reproduce a clientelistic style of political representation that is common in Jamaica. This situation, in turn, opens the Cockpit Country to a much wider range of "stakeholders" than ICDPs would seemingly care to admit. As such, the thesis on clientelism provides a valuable framework for understanding the formation and organization of the LFMCs. Concerning the outcomes of these projects, it will be critical to consider the importance of property ownership

and access to resources among the small cultivators of Cockpit Country, as many of the more accessible areas for ecotourism development in Cockpit Country are privately owned and many of the landowners seek access to resources, environmental and social, to benefit their families. Later in this chapter, the thesis of access to land and resources will be elucidated in the former NLFMC chairperson's words concerning the proposed use of his land in the CCLFMC ecotourism project.

Objectives, practices and outcomes of LFMC based integrated conservation and development in Cockpit Country

For many years, the Conservancy's conservation goals and measures focused on acres acquired and dollars raised, and the organization traditionally assessed the performance of the various operating units according to these standards. Conservation by Design demands more sophisticated measures of conservation success than just "acres saved." (TNC, 2001)

Following the trend toward more participatory forms of biodiversity conservation that had become commonplace in the Caribbean over the last decade (Adger, N.W, Brown, K., and Tompkins, E.L., 2006; Geoghegan and Renard, 2002), TNC began to promote its own version in the context of sustainable development. In brief, TNC's methodology touted what it calls "The 'Five-S' Framework for Site Conservation Planning" (TNC, 2000). The Five Ss include *systems*, which concerns the identification of conservation targets and the "natural processes" that are necessary to reach and maintain them; *stresses*, which necessitates the identification of types of problems that are "afflicting" the identified systems; *sources*, which entails identifying "the agents generating the stresses"; *strategies*, which concerns the methods for addressing stresses; and *success*, which is a measure of the condition of biodiversity and "threat abatement." It is

curious to note that this framework is TNC's solution to the issues experienced in the "fortress" style conservation projects, which were characteristic of the conservancy's formative years. While the Five-S program provides a more in-depth method for planning conservation programs, it is instructive to analyze this methodology with respect to its inclusion of people in the areas of concern, the extent to which they "participate" in the program, and what kind of livelihood impacts may be generated in garnering the support of community members (Schmidt-Soltau, 2004). It is useful to note the inherent contradictions in this form of planning before looking specifically at the LFMC programs in Jamaica.

It was the first three S's that brought TNC into their collaboration with USAID and FDJ. Through the 2005 socioeconomic survey conducted by the Windsor Research Centre (WRC) in collaboration with the FDJ, alongside a series of community meetings led by USAID, TNC, WRC, and FDJ, five "conservation targets" were identified. These included the limestone forest, karst freshwater systems, cave communities, giant swallowtail butterflies, and black and yellow-billed parrots. It is noteworthy to point out that the term "community" in this context refers to an ecological community of plants and animals, which excluded people. Regarding the second two Ss, the major threats and sources were identified as "impending" mining and quarrying, past and present conversion of the forest, invasive species, inappropriate garbage disposal, incompatible agricultural practices, and hunting and collecting various species for food, trade, and sport. While these are certainly valid points of concern, it is difficult to ascertain whether or how community member opinions were factored in concerning "incompatible agricultural practices." Community narratives that speak to this issue directly will be presented below.

Rather than reviewing all of the conservation objectives listed in the 2006 Cockpit Country Conservation Action Plan (CAP) produced by TNC, I will point out a few of the primary objectives and explain how these factor into the process of integrated conservation and development. The primary objective indicated in the CAP was to generate a long-term funding strategy for the “conservation” of Cockpit Country. In this objective there is no reference to development, alternative livelihoods, or poverty alleviation. In fact, with the exception of disseminating “appropriate best management practices for small scale commercial and subsistence farming,” which in itself is a vague approach to both poverty alleviation and alternative livelihoods, there is not one reference to development with respect to the communities of Cockpit Country in any of the remaining 10 priorities listed. This is not to say that the LFMC program was in no way intended to improve socioeconomic well-being, but it does point to TNC and FDJ’s bias toward conservation over development (cf., Simpson, Davis, & Haynes 2010). This perspective is reinforced by the program being established under the auspices of the FDJ through the 1996 Forestry Act, which also excluded any legislation concerning the development of alternative livelihoods and poverty alleviation within the context of participatory forest management. While a 2001 update to the 1996 Forestry Act does state that grants will be made available “for community forestry and forest-based recreational or eco-tourism ventures” (Forest Department of the Ministry of Agriculture, 2001), there is no plan within the legal framework set in place for the LFMCs or the broader Cockpit Country communities to access these grants. While decisions concerning the allocation of small loans were made by each LFMC chairperson, as discussed above, the fact remains that no formal mechanism was put into place for granting loans to LFMC members. USAID, however, in a 2007 end of project report, states that these

grants would be drawn from the US \$16 million debt-for-nature swap, and that funds could be accessed through the LFMCs (TNC, 2007). The Environmental Fund of Jamaica (EFJ), in turn, manages each round of funding directed to the LFMCs. While the literature concerning LFMC objectives and practices is almost completely devoid of information concerning the improvement of rural people's livelihoods, in practice they focused on three areas that were widely agreed upon in initial meetings with FDJ, TNC, USAID, WRC, and associated community representatives. These projects included ecotourism, craft production, and agroforestry. While all three of these areas are integrally linked, it will be useful to analyze each of these projects and the preparation involved to develop a more situated understanding of their implementation.

Capacity Building for Ecotourism

Ecotourism was/is the flagship project of the LFMCs. It is a venture slated to generate foreign exchange by attracting tourism to the area. It was agreed by the "stakeholders" that extensive training in business management, tour operation, and food preparation would be necessary to start this venture. It would also require forming a relationship with the Tourism Board Product Development Company (TPDCO) of Jamaica. As it was intended for the LFMCs to run these enterprises outside of the immediate supervision of the patrons, it is quite telling to document the training they received and consider that the average level of education of the people participating in the LFMCs was at the primary level and most people worked in agriculture. When discussing the educational component of the LFMCs, one of the TNC facilitators said,

I had a vision that for such a venture to really be successful, you'd have to take the young black persons and immerse them into formal education. Short courses

were just not gonna be enough because the educational level was not high enough, and so it was somewhat romantic to think that persons that have never managed that kind of business, let alone successfully, could do so without intervention and short courses, which we'd had them do.

The facilitator went on to say that,

But why I said it's romantic is that, we all take it for granted, education. You can take persons with time, with very minimal education and turn them into superstars. They're all stars in their own right. But for you to manage a business formally, for you to manage and promote it and market it internationally and to be able to sustain that, does require much more formal training than they have, so it was not far-fetched for us to set up a site, but we knew that they were not ready to manage it themselves.

Yet it was the education component that was one of the more attractive programs in the LFMC, especially given the limited formal education of most of the local population. Many people were drawn to participate in the LFMCs because they thought they could be formally educated through its programs. The LFMCs provided a financially accessible form of education, countering the well-established phenomenon of access to education in Jamaica that is commonly associated with the brown middle class (Thomas, 2004). Yet in the words of the TNC facilitator above, this rather attractive component of education was not sufficient for building people's capacity in the context of developing and running ecotourism programs. This begs the questions of why TNC would initiate such programs with this knowledge in hand, which will be further analyzed later in this chapter.

To begin, the Small Business Association of Jamaica (SBAJ) began workshops detailing the processes for developing an ecotourism business. It was determined by SBAJ and TNC that the LFMC would be comprised of a business unit and an environmental protection unit. The business unit was, at least in part, responsible for negotiating lease agreements with landholders

in sites identified for ecotourism development. The environmental protection side of the organization was more concerned with working directly with the FDJ on reforestation projects and environmental protection more broadly. One meeting that I attended in June of 2008 concerned entrepreneurial training in “Cock Pit Country” (original spelling included to highlight the organization’s lack of familiarity with Cockpit Country). In this session, a USAID representative was lecturing on various types of businesses, e.g. unincorporated bodies (the majority of businesses in Cockpit Country), Limited Liability Companies (LLC), and Cooperatives. As the facilitator explained various business structures, the audience of 25 people sat motionless, making little sound--notes were not taken and questions were rarely asked. At one point an audience member politely raised his hand. When called on, he said, “when me look pon de tv in de evening, de Prime Minista cum on an se wut a gwaan an me undastan every word, but me ca’an understand a ting unu se.” The facilitator, in utter dismay, replied by saying, “it’s not my fault if you can’t understand me.” This type of interaction early in the project illustrates a gap in communication and education, while also intimating a resistance to the language of sustainable development, which I will discuss later in this chapter.

The power issues become apparent in such instances as educators express little concern for successful delivery of the lesson, even as students plead for clarification. In this particular instance, the facilitator was a consultant brought from outside of the project. Meanwhile, the students want to participate in something where they may have an opportunity to make positive economic changes in their own lives. This type of interaction clearly stands in tension with Thomas’s (2004) argument that the people in the “lower sets” believe that only educated people are capable of interfacing with NGO and government agencies. However, Thomas may not have

considered that those in lower socioeconomic groups, in this case the rural poor, are not a homogenous grouping of people—they are a diverse set that have varied educational and professional experiences. The chairpeople of the LFMCs were not all formally educated, but attaining their positions may have afforded them a form of social mobility, whereby their newly given status transcended class boundaries. As Robotham (1991) argued, class in Jamaica has been increasingly linked with status over race. As such, many LFMC and broader community members believed that formal training and participation in ecotourism would afford new opportunities to the community.

The entrepreneurial training entailed seven sections to be taught over the course of two weeks. It included lessons on how to start a business, manage business assets, deal effectively with clients, and human resources. This program was to be accentuated by training for LFMC members in areas of tourism, food preparation, cultural sensitivity, and an ongoing series of environmental education sessions developed through the Windsor Research Centre. While these training sessions were offered to all LFMC members, the chairpeople tended to select younger community members for tour guide training and women for food preparation. The LFMC members frequently expressed their lack of understanding of the lesson content, but all who attended were awarded certificates of completion. In this patronizing practice, it would seem that reporting training completion to funding agencies was more important than ensuring that LFMC members were properly trained in ecotourism and broader entrepreneurial practices. In addition, several members took the bus scheduled to bring LFMC members to the capacity building training seminars in Montego Bay and elsewhere, but decided to reroute their destination to buy much-needed goods from town. Upon return to the training session, they were

also awarded certificates of completion. In this practice, LFMC and community members came to criticize the community members for abusing the generosity of TNC, while executive committee members came to see the training sessions as a means for generating profit for TNC. Further, the last three of the entrepreneurial training sessions were cancelled by TNC without explanation of how the funding would be reallocated. It quickly became apparent that the LFMC members were going to need additional capacity building exercises to launch and maintain a viable ecotourism enterprise. The chairperson sought out grant writing advice and training through Dr. Mitchell of the University of the West Indies, but was confronted by a TNC facilitator, who said they would cut all funding to the SWLFMC if they continued to seek training through other organizations without TNC approval. Clearly, this move to expand the LFMC support base posed a potential threat to TNCs economic interests in the project, as TNC directly profited through their role of program organization and facilitation; that is, for each training session they organized and each hotel site they reserved for these purposes, they received 23% of all expenditures.

The lack of capacity building and the importance of education were clearly recognized among community members, LFMC participants, and NGO facilitators and researchers. Let's consider a few brief narratives that speak to this subject. To begin, one of the chairpeople spoke of the "type" of people that this program attracted:

Specifically in Cockpit Country, the LFMCs were formed to assist the Forestry Department in managing the natural resources of Cockpit Country, but what I think happened was that the people who came to the meetings who had time between 10 [am] to 3 [pm], to attend a meeting you know, which were not educated people, you know just some people coming around.

And given my earlier argument, this pattern seems to be quite unsurprising. Again, access to education is clearly linked to class, specifically the brown middle class, though race, as argued by Robotham (1991), has taken a secondary role to status. The tension between education and voice, as exemplified above concerning the SWLFMC chairperson's initiative to seek capacity building outside of TNC's programs, was also quite clearly recognized among community members that were not participating in the LFMC. Take the following quote as an example:

It's good for them to develop it [an ecotourism program] but there is a lack of education. If persons in the LFMC were educated on what's expected and what they can demand and all of that, the project would go further. But the fact that they were not exposed and all of that, I think lots of things were dictated to them. So if they are more educated they will know exactly what they want and with proper teamwork they will get exactly what they want so that this community can develop.

This shared understanding of education among patrons, brokers and clients presents an opportunity to return to Thomas's (2004) understanding of race, class and education in the context of NGO interactions. The aforementioned chairperson was a member of what USAID and TNC classified as the rural poor. However, he had some high school education and professional experience in the tourism industry that helped him to see the inroads to developing a more robust program that would help to facilitate one of the more pressing matters in the LFMC program—funding! Yet when confronted with the matter, TNC officials refused to allow community loyalties to stray to other institutions, at least in the context of capacity building. It seemed the knowledge of the chairperson began to threaten the control over the TNC-led capacity building project, which commanded a significant portion of the project proceeds. This

control over capacity building as a means for generating profit is a clear indication of TNCs lack of interest in the LFMC ecotourism initiatives as a development project.

Shifting Agricultural Practice

The agroforestry component of the project was focused on reducing the estimated 6 million yam sticks harvested annually (TNC, 2007) by providing alternative methods for sustainably farming yam. Yam sticks are in high demand in Cockpit Country, particularly in the upland areas of Trelawny, where the majority of Jamaica's yam cultivation takes place (Tole, 2006). Yam sticks are pieces of wood that range from about six to eight feet in height, around which the yam plants are staked and grown. Tree saplings are typically used because they are just the right height and girth. The "yam stick problem" concerns the high price and low quality of yam sticks, which has been associated with deforestation (Beckford & Barker, 2007). Yam sticks sold on the informal market tend to last about one year, requiring farmers to allocate a significant amount of their proceeds to repurchasing and installing the sticks. The yam cultivation process is labor intensive but requires little investment outside of labor, sticks, and land. The concern on the part of the FDJ, TNC and USAID stems from potential forest fragmentation exacerbated by the yam stick trade, both from the removal of tree saplings and the clearing of paths and roadways to access the saplings. Forest fragmentation has been shown to limit the ranging characteristics of various endemic species of birds and snakes (Tole, 2006).

In 1990, a farmer in the Auchtumbeddie area of Trelawny, found that he was losing significant proceeds when investing in material and labor for yam sticks. Mr. Brown's farm was comprised of approximately 5000 yam hills, which required the installation of new yam sticks

each year. With a concern for the money and labor lost in this practice, he began to experiment with living trees as a substitute for yam sticks. However, the problem was that the tree roots would branch out and ruin the yam yield. He then reached out to the FDJ, who offered some limited advice and donated some seeds, but Mr. Brown found it difficult to maintain any sort of ongoing dialogue and decided to continue experimenting on his own. He eventually came across the bitter damson tree, which has roots that grow straight down and do not interfere with the yam growth cycle. The tree takes approximately five years to mature to the point where it is capable of supporting heavy yam vines. Mr. Brown commented on how the 'living yam stick' would not only save him money for the sticks themselves, but also save him significant labor costs. The FDJ adamantly opposes deforestation and traditional yam stick practices, and the farmer realized that what he had been doing to help himself would ultimately help the environment, though that was never his intention. I asked if any other farmers picked up on the practice after he has shown 15 years of success. He said that most farmers still couldn't be bothered, and that 'farmers in Jamaica think short term.' However, as described in chapters 3 and 4, such short-term agricultural practices are integrally tied to land tenure and people's relationship with land in Jamaica, whereby small farmers have historically been restricted from access to the land and resources necessary for supporting long-term agricultural practices. Again, for those small farmers who rent, operate on family land, or cannot produce a legal title, long-term agricultural solutions tended to be viewed skeptically.

After Mr. Brown's 15 years of success with living yam sticks, the FDJ introduced the idea to the LFMCS. It was widely popularized in the group that this practice would cut down on costs of labor and materials for those who participated. The trees were offered at no cost. On June

9th, 2009, in the Top Trelawny areas, TNC facilitators handed out 1300 bitter damson saplings to local farmers, while offering monetary assistance so the farmers could hire people to plant the trees. Each recipient was asked to sign a document that ensured they would use the money for the purposes of attaining labor to plant the trees. Toward the end of my fieldwork in 2010, only three LFMC members were attempting to use the living yam sticks. This pattern was grounded in the fact that the majority of the farmers who joined the LFMCS were small scale, subsistence farmers who worked small plots of land, averaging 1-2 acres, used to grow a variety of fruits and vegetables, with an average of 250 hills of yam. The farmer from Auchtumbeddie, on the other hand, was a medium-scale farmer who produced yam principally for export. His holdings were roughly seven acres, with over 2000 bitter damson trees supporting 4000 yam hills. Further, he practiced a form of shifting cultivation, wherein he rotated plot use to allow the soil to regenerate and regain fertility. As such, Mr. Brown had the opportunity to plant bitter damson trees and allow them to mature, while continuing traditional yam cultivation practices elsewhere on his land. After five years of allowing the trees to mature, Mr. Brown was able to shift the cultivation areas while benefitting further from the trees in the areas that were not being cultivated. The trees provide shading and help to decrease soil erosion that is common in hillside cultivation. Considering this, it is less a fact that farmers who were LFMC members thought short term, as much as they did not have the land and resources to sustain this TNC and FDJ touted practice.

The Language of Integrated Conservation and Development

Conservation Action Planning is a collaborative and structured approach to conservation planning which uses the principle of adaptive management to develop successful conservation strategies (TNC, 2007).

To build on my critique of the formation and establishment and the objectives, practices, and outcomes of LFMCs, it will be instructive to analyze the broader discursive and material articulations of integrated conservation and development in the current context. In this section I will focus on the language of sustainable development as it is produced and reproduced in the current case study to better understand what this language entails and carries with it (cf. West, 2006). Many of the critiques of the language of sustainability take on a highly theoretical tone (cf. Escobar, 1996). This theoretical perspective is quite useful for understanding the nexus of ecological and social discourse in the context of sustainable development, but yields little concerning how the language of sustainability is applied on the ground.

The language of sustainable development ultimately promotes tensions between those that have access to resources and those that do not, in what has been termed a form of “cosmetic environmentalism” brought about by public concern over environmental problems (Robinson, 2004). While concern over environmental issues often does lead to meaningful interventions, the current context yields very different outcomes, particularly when interventions, such as ecotourism, are negotiated among people of varying social standing. This language has been attributed to “urban elites” who import it, and its associated practices such as participatory planning and the development of research instruments concerning the study of people and nature (see my critique of the Connectedness to Nature Survey in chapter 4), to serve their own means, such as achieving conservation in favor of capacity building for politically and environmentally marginalized populations (Everett, 1997). There is a significant attribute of power associated with this language, whereby the people and organizations that shape the discourse are ideally positioned to harness that power and promote an illusive and vague set of terms that vary in

meaning according to the people that are using them. It is a discourse that ultimately masks and colludes with the “inequalities and cultural distinctions” that are inherent in ICDPs and sustainable development, as sustainable development interventions are often based on economic rather than an ecological rationale, not unlike development more broadly (Banerjee, 2003); that is, as illustrated above, the need to generate profit is primary to developing community capacity. However, there is a responsibility that comes with the production of this language that frequently eludes those in positions of administration and facilitation. “The power of an actor to influence a discourse will undoubtedly shape their opportunities to move that discourse, and the potential policies emerging from it, in a direction that is more favorable to their perspective” (Lightfoot & Burchell, 2005). Yet this language holds the promise of sharing power and decision making, unlike broader development processes.

Given these inputs, it will be prudent to examine how the language of sustainable development was applied to the CCLFMCs and how it works to influence policy and practice that is more favorable to those who have contributed to the establishment of sustainability discourse and practice. To begin, it will be instructive to consider the language of sustainable development as written in *Our Common Future* and the influential *Agenda 21* stemming from the 1992 Rio Earth Summit. *Agenda 21* offers practitioners an adaptable set of guidelines that fit loosely into development, conservation, or a combination thereof. In *Our Common Future*, the language yields a confusing set of legal principles, however. For instance, the first legal principle states, “all human beings have the fundamental right to an environment adequate for their health and well being.” It would be difficult to disagree with such a broad based statement, but on closer examination several questions come to the fore. For example, “adequate” for

whom; what environment; what is well being; who makes these decisions? In this context, it would seem to be easier to identify actions that are not sustainable than to define those that are, which does little to define sustainable development and ethical practices therein (Hodas, 1998).

Taking a more situated and contextualized view of the application of *Agenda 21*, I will briefly review the “Forest Principles” section as it pertains to the current case study. Consider Article 2 (d) –

Governments should promote and provide opportunities for the participation of interested parties, including local communities and indigenous people, industries, labour, non-governmental organizations and individuals, forest dwellers and women, in the development, implementation and planning of national forest policies.

This statement warrants several concerns. To begin, it is difficult to decipher what is meant by “opportunities for the participation of interested parties.” This statement could be read in several ways. Would this include an online forum where “interested parties” could “participate” in planning and implementation? Perhaps a town hall meeting? In either example, the second concern rests on the heterogeneous groups that are referred to in the statement. Forest dwellers, for example, might have a difficult time finding a way to participate in either of the forums I set out as examples. Another key example in this document is in Article 5 (a), which states:

National forest policies should recognize and duly support the identity, culture and the rights of indigenous people, their communities and other communities and forest dwellers. Appropriate conditions should be promoted for these groups to enable them to have an economic stake in forest use, perform economic activities, and achieve and maintain cultural identity and social organization, as well as adequate levels of livelihood and well-being, through, inter alia, those land tenure arrangements which serve as incentives for the sustainable management of forests.

This particular guideline presents a promising set of terms that challenge the dominant development paradigm in the establishment of a more inclusive and equitable process, a process

of sustainable development. However, this language is ultimately shaped in the hands of people that have the power to move such a discourse (Lightfoot & Burchell, 2005), which presents the potential for interpreting national forest policies and broader sustainable development practices in ways that contradict their usage in *Agenda 21*. For example, how should a national forest policy support identity? What are the “appropriate conditions” for “these groups” to have an economic “stake”? This statement certainly alienates groups of indigenous people that do not have a “stake” in the broader political economy. Finally, we are faced with the term “adequate.” And I will ask again, who determines what “adequate levels of livelihood and well being” are? Perhaps most interestingly is the last sentence concerning “land tenure arrangements.” In the Jamaican context the relationship between land tenure and sustainable development warrants further examination given how many are landless in the rural areas. This issue will be addressed below. Article (d) of the same section states that in the context of employment and forest benefits “adequate involvement of local inhabitants should be recognized and enhanced.” Section (h) states that environmental impact assessments should be carried out where “actions” may have a “significant” impact on forest resources. However, many nations had already set this into law before *Agenda 21* came about (Hodas, 1998). Further, the language continues to be evasive—what “actions” and what is “significant impact”? While these ambiguous terms may be used in opposition to the unsustainable practices of large landholders and government, they provide little for people who have been marginalized through the history of land tenure and access to forest resources in Jamaica. Finally, and perhaps most importantly to my concerns, is Article 9 (b) which states that:

The problems that hinder efforts to attain the conservation and sustainable use of forest resources and that stem from the lack of alternative options available to local

communities, in particular the urban poor and poor rural populations who are economically and socially dependent on forests and forest resources, should be addressed by Governments and the international community.

So how should these problems to be addressed? Should “their” dependency be limited and restricted as seen in several conservation and sustainable development projects of late (cf.

Springate-Baginski and Blaikie, 2007)? Further, who determines what the problem is?

Considering these few guidelines will be quite useful before moving into an examination of how the language of sustainable development was employed in the current case study, in that there is a fundamental contradiction rooted in the set of guidelines that were used to develop those used in the LFMCS; that is, the language of sustainable development has no meaning until its conceptual and material manifestation is realized in its application.

In the current case study, a language of sustainable development was at the forefront of all activities concerning the CCLFMCS. To start, I will review a set of guidelines for them. The excerpt below is drawn from TNC’s report on “management committees in protected areas,” which they developed for the USAID Parks-in-Peril project. These guidelines were established by Bruno Monteferri, who is a legal advisor working with the Conservation Program of the Peruvian Society for Environmental Law, but they were employed in several countries throughout South America and the Caribbean, including Jamaica.

Guiding Principles for Participatory Protected Area Management

- Inclusion. Development of actions for the inclusion of different stakeholders with different characteristics (i.e. ethnicity, educational level, gender, etc.), aiming to guarantee equity.

- **Integration.** The actions should be framed within the conservation objectives of the protected areas and integrated with the regional development process. A strong committee will be able to upgrade the profile of the protected areas and position them as structural elements of development policies.
- **Information.** Support the continual sharing of updated and reliable information between the authority and the local collectivity.
- **Transparency.** Management should be transparent and incorporate accountability mechanisms. Accountability has a political effect since it minimizes the abuse of power, and an operative effect because it ensures that agencies work effectively and efficiently.
- **Efficiency.** Strategies are designed so as to achieve objectives with an optimum use of available resources (TNC, 2007).

This set of guidelines, which are similar to those of *Our Common World* and *Agenda 21*, raises similar questions. At this point it will be more useful to analyze how these terms were understood by the LFMC members. To begin, “inclusion” calls for a diversity of people to be included in the projects. However, the term “stakeholders” incites a series of powerful images historically drawn from Germanic language. The word originated in 1708 as a compound of “stake” and “hold.” In its 14th century usage, stakes were used to demarcate land, which speaks to my attempt to critique the language of sustainability in this context, whereby the “stake” lands into the hands of the powerful “holder” again, as it is those that have authority in the National Land Agency of Jamaica who are responsible for property demarcation. In its 16th century

usage, “stake” implied to “risk” or “wager.” In this final usage, the term is still rather confusing in that the immediate risks for TNC and USAID seem to be difficult to attach to the ICDPs more broadly, though they may be wagering the livelihoods of the people on the ground to benefit themselves. In the corporate governance literature, where the term has received the most attention, it has been found that the term “stakeholder” has little meaning (Orts & Strudler, 2009).

The goal of “including” people of various ethnicities, educational levels, class and gender was certainly achieved in the LFMCs. However, “inclusion” of different kinds of people hardly ensures equity. Quite the opposite, it ensures inequity among these varied groups by privileging people according to age, gender, and property ownership to name a few. For example, the better educated men in the respective communities easily ascended to the top of the executive committee hierarchy; women have yet to be “included” in the chairperson position; and land holders were better positioned to benefit from ecotourism ventures, though this was not necessarily the case as described in chapter 4. Following a series of events leading to the chairperson of the Flagstaff LFMC to step down, many of the executive committee members were prepared to nominate the executive secretary for the chairperson position. This secretary, a woman, had been involved at the executive level from the beginning of the CCLFMC project. However, when it came time to elect a new chairperson, the LFMC base voted for a man who held the prestigious position of a schoolteacher—albeit in physical education—who had only attended a handful of meetings prior to his appointment. This treatment of gender in the LFMC executive structure was neither pragmatic nor equitable. In fact, women were frequently

relegated to positions of secretary and public relations officer, further reproducing the gendered division of labor well known throughout the history of Jamaica (Figueroa, 2004).

Concerning integration, it is interesting to note that it was deemed necessary to frame actions within the nation's "...conservation objectives of the protected areas..." in that Cockpit Country was never established as a protected area, but as a forest reserve. Further, the "regional development process" was firmly rooted in mineral extraction and tourism. While tourism cum ecotourism was established as a logical fit, the consideration of developing conservation objectives in relation to ongoing mineral extraction was stifling and contradictory at best.

The remaining terms afford a much more pragmatic reading of how sustainable development in the current ICDP materialized in Cockpit Country. Information is a key component in ICDPs, and was eagerly sought by several key "stakeholders" in the CCLFMC project. At the start the Cockpit Country Management Plan was slated to include a draft constitution to outline the roles and responsibilities of the LFMC executive committees. Note that this document did not include the roles and responsibilities of the facilitators from FDJ, TNC, or USAID. Rather, their roles were loosely explained at LFMC meetings, e.g. The FDJ role was to act as a guide for the LFMCs, but not interfere directly in LFMC business. Concerning these roles and responsibilities, I asked one of the LFMC chairpersons to explain who was responsible for promoting the LFMCs at the community level. I never expected the following impassioned response.

JD: Who is responsible for promoting...

MR: Well, you never really put it on the shoulder of anyone directly, just the committee itself, right. And they said in the five-year specific plan with the job, it's inside of there [LFMC Office], I never get to read up on a job come down to the president, which I never get no copy of because I couldn't read through or say if it

would come to you and if this really dedicated to you to do it. I put it under your control, right. Me never get through it, me never get to read the strategic plan. You know it draw up there [it has been written], but they never publish that and other members get it.

As part of promoting the LFMC and their broader message included community outreach, the responsibility would certainly seem to fall in the hands of the LFMC Public Relations Officer (PRO). However, as the terminology, also stemming from corporate governance, is not part of the day-to-day vernacular in the rural communities of Cockpit Country, and without formal documentation to provide further insight, this fundamental role fell by the wayside. As such, the LFMC executive members deferred all undocumented responsibility to the chairperson. The distress in the chairperson's words is apparent here, with the issues of power coming to the fore. He mentions that the plan was drawn up by consultants, but that the LFMC committee members never received it. It turns out, upon further investigation, that the LFMC constitution, which would have outlined the roles and responsibilities of the LFMC executive committee members, was never written, but existed only as a placeholder in the 5 year plan. The absence of this constitution clearly marks a lack of consideration for the establishment of local LFMC governance, leaving executive committee members with little guidance, whether negotiated among all participants or otherwise.

During the course of my fieldwork, there were several references to “open” and “transparent” processes regarding the work of the LFMCs. And, in an effort to achieve transparency, several people participating in the project attempted to make their work transparent through formal documentation and open practices, e.g. monitoring and tracking expenditures. However, there was a fundamental disconnect between the community members' understanding of transparency and that of the organizations with which they were affiliated. For example, the

forest conservation fund (FCF) provided money to the FDJ to employ community members in a reforestation project in which the LFMC members understood they would receive preference as part of the incentive for participating in the LFMCs. The following interview excerpt elucidates the feelings of several LFMC members with whom I discussed this matter:

EM: No, they spent that down but to how we see it like the job, the project from the Forest Conservation Fund, right, if it come through we plant the trees, you have certain people, certain executive people to oversee the planting and so on. But the same person has a piece of land so he want two trees or something. That is the way we want to see it. We no want to see it through the Forest Department, and we go through the Forest Department now. The man from the Forest Department give it for him person to conduct the work. You understand me? And that is how it has gone down....

JD: When that's happened in the past, do you know who takes what?

EM: No....

JD: Do you know where that money comes from in the first place?

EM: Well, that's something I don't know.

EM is stating that the LFMCs did not have direct control over project funding, and that many members did not know where the funding came from. Further, EM and other LFMC members were very well aware that there was an element of favoritism on the part of regulatory agencies, such as TNC and FDJ, in their practices of distributing paid work; in this example, FDJ officers were hiring non-LFMC members to participate in trail clearing and reforestation.

Many LFMC participants mentioned this lack of transparency. In fact, only a handful of the 64 Cockpit Country residents that I interviewed had any idea where the funding for the LFMC ICDP came from, not to mention the utter lack of understanding of how those funds were dispersed. Another participant revealed the following:

MA: Uhm, I think what I've seen for the past three years is that one set a people is getting a lot a money by who is the consultant. You know, who assist to write the five year strategic plan. Always the same people and everybody always seems to me that they are friends. You know, I think that when grant funding come there's a set a people who know, who exist from that. You know, I think uhm, some of these money if it was just if there was NGOs in Cockpit Country such as even the Cockpit Country LFMC I think that is why they wanted the LFMC to become a benevolent society or you know and not a NGO. You know, so they could still have all these consultants.

This interview excerpt came from an LFMC chairperson, who in this context, may be viewed as a person in a position of power through privileged access to information and resources, or a broker in the context of clientelism. This type of information was rarely shared with the LFMC members outside of the executive committees. As such, the community members typically took a relatively uncritical view of the roles of USAID, TNC and FDJ. In fact, they were typically lauded for development dollars and training that they brought to the project. In these terms, considering the 12 million Jamaican Dollars (~ US\$123,000) that was invested into the Flagstaff (SWLFMC) ecotourism project, the LFMC members outside of the executive committees did not have any information on how the money was being allocated in the ecotourism venture, aside from the obvious development of an ecotourism visitor center and direct incentives. In the Flagstaff context, the SWLFMC chairperson paid LFMC and broader community members with phone cards, rum and tobacco to clear trails and clean garbage from the roadside.

As such, the most transparent actions were those of the executive committee members aiding in the facilitation of LFMC projects on the ground. In this context, any activities that concerned the broader LFMC membership and community members were attributed to the actions of the LFMC executives, principally the chairpeople. The notion of decreased transparency brings up the issue of participation, which was at the center of the LFMC process.

Central to this process was the inclusion of LFMCs in the 1996 Forestry Act, whereby it was deemed necessary to fold community members into environmental protection activities to effectively monitor and report on the conditions of the forest. Considering this notion of community participation, it is important to note that 19 of the 30 LFMC participants that I interviewed said that they had no role other than to attend bimonthly meetings, for which they paid a 500 J (~ \$5.50) annual membership fee. So what exactly did the LFMC members participate in aside from meetings? How have they participated in the development of the ecotourism venture in Flagstaff? The following interview excerpt helps to shed some light on LFMC accomplishments to date.

MZ: So, your question was what projects have the LFMCs accomplished so far.

JD: What have they accomplished, yes.

MZ: And I said nothing, because I consider those two projects, the Bunkers Hill project and the Flagstaff project to be TNC projects, using the LFMC as their, their core, if you like. So the first project that the LFMC actually had was the EFJ (Environmental Fund of Jamaica) funded project, called capacity building for the three LFMCs. And that's the one where we're having all the financial problems right now. So it's not only the first project, it might be the last.

In this case, the Flagstaff iteration of the project fell into the hands of outside contractors who did hire local community members to handle some of the remedial tasks involved in the construction of the Flagstaff ecotourism visitor center. However, this project was not handled by the LFMC directly, and few of the community members understood the development aspects—such as funding allocation—behind the construction of the building. This process, as it was understood by the community members, was not unlike the process of bauxite mining, where it was understood that bauxite companies had the potential to bring cash dollars to the communities, but only while the project and resources lasted. Further, the majority of profits

distributed locally would go to people who have expertise in mining processes, such as heavy equipment operators, who predominantly come from outside of the communities of concern.

To further exemplify the materialization of the language of sustainability, I will, as a final example, describe a seminal day for the South West LFMC based in Flagstaff, as well as the LFMCs more generally. On October 15th 2009, the Flagstaff Heritage Tours and Trails ecotourism project was launched and promptly handed over to the community members of Flagstaff. This was expected to be a massive event, with people from all over Jamaica and abroad attending—it would be the most significant influx of people from outside of Cockpit Country experienced in Flagstaff. On the prior day, October 14th, several people from Flagstaff and surrounding areas worked together to prepare food (fig. 13 and 14) and craft stalls (fig. 15), and erect a stage and seating area (fig. 16), which would accommodate roughly 200 people. Meanwhile, people cleaned the roadside of trash and debris, and covered a garbage heap that had been building at the ecotour trailhead. As an LFMC executive member barked instructions at one of the temporary employees, who had shifted some garbage to a location under the instructions of another person, the LFMC executive member said, “me the boss here!”



Figure 13: Community members preparing duchanoo (blue panties), a traditional Maroon food.



Figure 14: Community members setting up a banana bread stall.



Figure 15: Crafts stall with Maroon ceremonial clothing and beaded necklaces.



Figure 16: Community members setting up the Flagstaff Heritage Tours and Trails launch ceremony seating area and stage.

Regardless of fleeting frustration concerning who was in charge, there was a tone throughout the town square of excitement and anticipation. Reggae and Dance Hall played throughout the workday as people worked side by side to transform the town square into a space of ceremony and recognition, where the people of Flagstaff would be awarded for their participation in the reclamation of their township—they would be rewarded with the fruits of ecotourism. As the sun set and preparation slowed, rum and beer flowed freely, with Dance Hall blasting in the town square. People started dancing in the town square, smiling and speaking of how the area was transforming into a space of new opportunities for them. Many people in the

town square reflected on such varied topics as Maroon history, the downturn in the economy from the 1980s, the ills of capitalism, and the work that they and the executive chairperson of the SWLFMC had done to come to this point. Referring to capitalism, when speaking to a group in the town square, one person added, “it bad for small countries like Jamaica.” Yet, concerning the upcoming ecotourism project, many spoke of how it had already brought jobs to Flagstaff. The town was celebrating this rapid transformation—in a way, they were celebrating their freedom and newly regained sovereignty as the project was to be turned over to LFMC and community members.



Figure 17: Shaw Castle Band.

Preparations resumed at sunrise the following morning. Route taxis zoomed in and out of the square, delivering people to their respective posts. Around 10 AM, cars began to line up on the roadside as the event attendees began to arrive. The Shaw Castle Band (fig. 17) took their place by the event area, and began to sing traditional Maroon songs. Politicians such as Edmond Bartlette, Minister of Tourism, and Isaiah Parnell, Chargé d’Affaires, were in attendance. At 11

AM, the event commenced, with speeches from the Minister of Tourism, the Chargé d’Affaires, TNC representatives, the director of USAID in Jamaica, scientists associated with the Ministry of Agriculture, and the executive chairperson of the South West LFMC.



Figure 18: Dr. Karen Hilliard, director of USAID in Jamaica, addressing the audience.

The Minister of Tourism called for Jamaicans to take more “staycations,” and emphasized the need for a shift of tourism activities from the “overtaxed” coastal areas. He spoke of the possibilities in projects like the LFMC for the realization of Marcus Garvey’s dream—the realization of heritage in the affirmation of self. He also promised 100 million Jamaica dollars (~US\$1.1 million) toward the completion of a museum in the village and for young people with high school and college degrees to apply for grants concerned with ecotourism and heritage

projects. The Chargé d’Affaires, who had been living in Jamaica for six weeks at that point, spoke of the need for economic growth. USAID and TNC representatives spoke of the impact of “traditional farming practices” on biodiversity loss, and expressed hope that the community members would take the lead and make the project work (fig. 18), as TNC and USAID were terminating their involvement with the project. Finally, the executive chairperson of the South West LFMC delivered a description of the history and culture of Flagstaff, and a detailing of the project.

As I sat in the audience, sharing this space of privilege, hearing calls for the community members to see the project through, I looked around to see who was being addressed. None of the community members had been welcomed into the ceremonial space—they sat on the outskirts and in the town square, listening to what was happening inside. When lunch was served, some community members helped to distribute food to those privileged to have been invited into the project launch ceremony. As the festivities wound down, community members were invited to share in the food that had been left over, but not until the audience had finished. Following a brief ecotour (fig. 19), ceremonial photographs, and a ribbon cutting ceremony (fig. 20), the event attendees promptly headed to their cars and left the area, leaving the community members to clean up and break down the ceremonial space they had constructed the prior evening.



Figure 19: An LFMC member leading a brief ecotour.



Figure 20: Edmond Bartlett, Minister of Tourism, and Karen Hilliard, director of USAID in Jamaica participating in the ribbon cutting ceremony.

In looking at terms such as “inclusion,” “participation,” “transparency,” and “information” in practice, I have illustrated how the “language of sustainable development” was

practiced in the implementation of the ICDP of concern. In effect, this illustration of the language and its implications provides for a more situated and contextualized view of the language of sustainability. While the majority of the critiques of this language point to its contradictions and how it masks “inequalities and cultural distinctions,” the language of sustainability goes further to mask everyday actions and processes that exist within sustainable development. This begs broader questions of how to make something sustainable when it does not “include” the population that it is concerned with on the development side of ICDPs. Such exclusions seem to set aside the perceived economic benefits of including the rural poor in development initiatives in favor of the final article listed in the Monteferri’s list of suggestions—efficiency. Efficiency can be quite difficult to attain in the context of sustainable development. The community members of Flagstaff could not be expected to “efficiently” facilitate the construction of an ecotourism visitor center in a period of six weeks—there were six weeks from the announcement of the launch of the Flagstaff project—and guarantee its completion in a voluntary capacity. TNC ascertained that it would be far more efficient to outsource this part of the project to a contractor. Meanwhile, a select few of the community members were included in this process through their participation in more menial tasks. Not only does this undermine the skills and abilities of the LFMC members and community of Flagstaff in general, but it suggests that the involvement of community members at this level of development would be inefficient, which would undermine the process of sustainable development adopted by TNC.

Working Together for “Sustainable” Development

To save nature all of us need to work together: development agencies, governments, private sector partners, and -- most importantly -- the local communities whose livelihoods are at stake (USAID, 2010).

The opening quote here is illustrative of the approach of integrated conservation and development programs. It is one of community partnerships designed to create an environment that is mutually beneficial for people and nature across a range of interests. This statement clearly reflects the need for ongoing partnerships between groups of people that are situated in very different social and environmental circumstances. Yet, this concept of working together for development is nothing new in the Jamaican context. As I have alluded to in the title of this section, David Thom McWhinney Girvan’s (Girvan, 1993) work in bringing communities together with government and private agencies to facilitate community based agricultural projects (1939-1968) speaks volumes to the current case study. Yet, as Girvan noted in his own work, and others have noted in the context of sugar cooperatives (cf., Feuer, 1984), these initiatives often spread mistrust and tension among community members and the organizations that “work together” in the development process. For example, concerning sugar cooperatives in the 1970s, mistrust was often spread among participants due to a lack of understanding of funding flows, distribution of profits, and abuse of power at the managerial level, not unlike the current case. In this respect, it will be beneficial to analyze the problems and potentials of the program of concern to illustrate the process of these lauded partnerships and their outcomes in the context of the CCLFMCs.

To begin, I will describe a series of events stemming from the USAID and TNC flagship project based in Flagstaff, St. James. To briefly reiterate, in 2009 TNC redirected all funding for

ecotourism activities to Flagstaff, effectively leaving the Bunkers Hill group with no funding or development initiatives. The LFMCs were established as democratic organizations that had a “stake” in all decision-making processes regarding project design, implementation, and funding allocation. While this process of decision-making clearly rests in the power domain of the agency that administers training and allocates USAID funding as such, allowing TNC to dictate LFMC practices was a fundamental breach of the understanding negotiated among the respective agencies and community members held at the initial meetings. Consider the following interview excerpt from a TNC official on the ground.

Through the LFMC meetings both at the executive level and the regular meetings, which were held bimonthly as one progressed, we actually took persons from both Bunkers Hill and Flagstaff and had wider stakeholder meetings. At large meetings all the stakeholders were apprised of all of the processes involved, in terms of if one were to set up a site, what was it that you would expect. So it wasn't that we just drew up a plan and gave it to them, they were able to have a voice to determine what the output would look like and who were benefiting, how they would benefit, the length of time over which the lease should be applicable for.

However, the community members did not have as much of a “voice” in determining outputs and benefits as they initially thought. In the development of these programs, the language of sustainability was employed to create an environment of “stakeholder partnerships” where the agencies operating in the patron class maintained a firm grasp on the “stake” that LFMC members had been promised. For example, LFMC participants had been assured that they would participate in all decision-making and that profits from ecotourism ventures would benefit the communities directly. However, TNC never discussed the most profitable side of the LFMC project, which came from the USAID funding that benefitted TNC for administering the project. For the community of Bunkers Hill, this raised feelings of resentment toward the Flagstaff community and the soon to be former chairperson of the Bunkers Hill LFMC (NLFMC), who

refused to have his land exploited for the benefit of a TNC project. Echoing the clientelistic relationships common in the area, the resentment was redirected toward The NLFMC chairperson and the SWLFMC that received the ecotourism funding, rather than the ‘maximum boss,’ which was TNC.

One of the predominant issues in this case concerned access to land and resources. When speaking with community members about the possibility of developing ecotours in the Cockpit Country Forest Reserve, there was often an expression of the tension between private property and public projects. For example, one person speaking on reforestation said, “dem [The Forestry Department of the Ministry of Agriculture] have no right fi go down there still. You haffi walk ‘pon people land fi go in de forest. That ca’an work! Forestry a one road go in. You ca’an drive go in a forest. You haffi walk ‘pon, if you walk here so [pointing to an entry point into the forest] fi go down a forest, you haffi walk ‘pon people land fi go a inna forest, you haffi go through a person land fi go inna forest.... Yeah, that a one big problem, too.” This tension between private land and public projects was quite clear in the earlier quotation from the landowner in Bunkers Hill. The following interview excerpt from a landowner and LFMC chairperson in Bunkers Hill illustrates some of the issues raised by land agreements and disputes:

I was the chairperson but uhm, let me say this—a number of, because I can speak toward my role—it’s these things in the community where people are looking to opportunities. It’s not very easy to work with because you have some people think that you are benefiting too much. “So it is not good for him, let’s do this to get him out.” And I sense that from my people. Because I sensed it I said to them [TNC], “look, if you are going to use my property, then it would be fair for me to benefit, because it wouldn’t be good because 10 years, 15 years we see people getting fat from it and I am still there.” If we see, and it also came back I’m saying it doesn’t make sense for you to use my property at the end of the day, the benefit I have got is minimal compared to what other people have got. No, it can’t be fair; it must be equitable! So these were some of the issues that I had to deal with.

The NLFMC chairperson inevitably resigned his post due to community tension compounded by his disagreement with TNC officials concerning the use of his private property. At this point, the chairperson cum broker had lost his ability to act as a conduit for negotiating the development initiatives with the patron class, which had promised to bring cash to the community. As the promise of dollars in the form of development projects waned, so did the membership of the NLFMC. The business unit of the LFMC had failed to secure a lease, therefore they would not receive any form of development and the environmental protection unit, which was dependent on a strong membership, also waned. In the context of the contradictions inherent in ICDPs, a more situated analysis of this case in comparison with the success of the lease agreement in Flagstaff will be instrumental.

To begin, Two Hill Falls, the private property of an individual in Bunkers Hill slated for this project, was identified as the premier location for ecotourism out of all three LFMC locations. Following an assessment of both Bunkers Hill and Flagstaff by the U.S. Forestry Department in coordination with TNC and USAID, it was determined that Bunkers Hill ranked higher than Flagstaff on a “tourism attractiveness index” with a total ranking of .73 (1 being the maximum ranking), which according to USAID, “is remarkable.” Given the quantitative proof of Two Hill Falls’ attractiveness to the international tourists who would have never seen the place, a lease was proposed. However, a proposal of 10,000 J (~ \$105) for a 10-year lease was rather unattractive to the landowner. Receiving just 1000 J per year (\$11.63), the owner exclaimed that he would see “little benefit.” As the chairperson of the NLFMC at the time, he saw his position as being expendable, and he was fully aware of the implications of having a

legally binding long term lease set in place along side his uncertain tenure as chairperson. As the lease agreement was proposed, all proceeds would be deposited into the LFMC account prior to expenditures. The following comment from the former chairperson makes the point about the vulnerability of his position.

They say, 'oh you're gonna hurt the plants' [in a sarcastic voice], but all of that is crap. You cannot be so overtly conscious about one thing and not overtly conscious about [another]... because most of these environmentalists, they are being fed by these donor agencies giving them money. So they don't have to worry about their food on the table, they don't have to worry about where they are going to get the next meal from.

This situation was not an unfamiliar one to the people of Bunkers Hill and surrounding areas. Speaking with another community member who had some experience with such matters, I was told of an environmental organization that had suggested her property would be an ideal ecotourism area. Based on the program officer's suggestions, the landowner, Mrs. Trails, made several improvements to the property, installing a bar and restaurant along with tables, chairs and benches. As it turned out, the program officer, without a formal agreement with Mrs. Trails, began to bring groups of 6 to 10 tourists at a time, charging the tourists 800J (\$8.90) per person for the tour. At the end of the day, the tour operator gave Mrs. Trails 300J (\$3.30) for the use of the property. After she explained this, she exclaimed, "him thief me! Him nah do nuttin' here!" Mrs. Trails felt that she and her property were being exploited for the individual gain of a person that fit into the brown middle class of Cockpit Country. Another family member came out to join the conversation. With respect to working with the LFMCs and using the property for an ecotourism site, the young man said, "mi nuh have a vision of it." He was wary of entering into this type of relationship, where the family was concerned that their property rights and land use

may be put into question by the LFMC or related organizations. Instances such as these reflect the deep-seated suspicion of outside interests among the largely landless population of small farmers when it comes to their property rights, or lack thereof. These concerns have their roots in the colonial period. The responses I found also challenge Thomas's (2004) thesis that the small farmer class will trust the brown middle class concerning environmental programs. I found their distrust was often directed toward any person who sought inroads into the area through environmental or other development programs in Cockpit Country, particularly when these interests concern access to private land.

In contrast, the current Flagstaff lease was much easier to negotiate. At the same rate of 10,000 Jamaican Dollars over a 10-year period, it was agreed that the landholders' property would be used to host an ecotourism visitor center on top of a structure that housed a rum bar and the town post office. The structure was located in the town square, where the ecotours would meet before heading out to existing trails on Crown Lands. In addition, the landowner agreed to allow the LFMC to develop a small, 10m x 10m medicinal plant plot on a piece of his property adjacent to the ecotour trailhead. With this development and in contrast to the Bunkers Hill case, the building would not be the center of the tour and would not require any effort on the part of the landowner as far as site maintenance. In fact, the building rooftop provided little benefit to the landowner aside from its intended purpose. Also, there were several benefits to be realized through the potential of increased traffic to the store/bar, not to mention a free renovation. At the time, the small piece of land that he allowed the LFMC to use for the plant plot was not in use, and he would benefit from their maintenance of the property. These arrangements call to mind Escobar's (2009) contention that sustainable development mirrors the

power structures and top-down processes inherent in the dominant development paradigm, in that they were ultimately negotiated among local landowners and the urban elite. However, while there is a clear unevenness in this case—the groups that were willing to adhere to TNC directives were the winners of development—the LFMC democratic process, a process rooted in the discourse of sustainable development, presents a clear example of Escobar's thesis, in that this process of reconfiguration of the vernacular landscape was negotiated among the urban elite and the local landholders (cf., Massey, 2005), yielding very different development outcomes in these geographically distinct locations.

Yet, this singular land lease was contrasted by other attempts to lease lands from other small farmers in Flagstaff. For example, a forestry officer had suggested that a medicinal plant plot should be set up for display at their ecotourism trailhead. While this was initially done on the bar/restaurant owner's land, he decided to renege on that part of the deal so that he could plant bananas, a fundamental part of his livelihood. However, the land at the trailhead, which leads to Crown lands, was partitioned among various community members. As such, the land for a medicinal plot would need to be rented from another one of the community members. Yet, the land that would have been most appropriate for the plot was owned and used by another community member for agricultural production. As LFMC members pressured the owner to lease them a small portion of the space, it was apparent that she did not want to sacrifice a potentially impressive agricultural yield toward the establishment of something else for an organization with which she had no affiliation. In essence, the owner might have been stripped of her ability to determine the use of the land, in the interests of cultivating medicinal plants that she would not have access to even as it would have dominated a significant portion of her

property. While this may seem to be a minor change in land use venture, recall from chapter 3 that small holders associate property ownership with freedom and sovereignty (Weis, 2007), and are suspicious of any incursions on that autonomy.

These clear power relations concerning the establishment of ecotourism in Cockpit Country, while thoroughly uneven, recall Cindi Katz's notion of "nature as an accumulation strategy" (1998). One way this process works is to claim the impending demise of nature and note its deleterious effect on global and local populations, in order to appropriate these claims in the interests of various potentially profitable preservation strategies such as ecotourism, among others. As Katz rather insightfully noted, the establishment of nature parks, ecotourism ventures, buffer zones and debt-for-nature swaps, all of which materialized to some extent in the Cockpit Country context, follows directly as a solution to the extraction of nature. The wealth and resources typically flow from the nations of the global south to those in the north. In the context of the CCLFMCs, the initiative was to privatize nature through the establishment of public/private partnerships that concentrate capital on spaces marked for agroforestry, ecotourism and preservation more broadly. However, in the current case study, it is the LFMC's responsibility to prove itself as a viable entity in the face of extractive industries. To effectively establish the LFMC's viability, it was necessary to redefine land use practices by renting "pristine" lands from the local populace for the purposes of ecotourism ventures—these lands are far more accessible than the forested Crown Lands characterized by thick and virtually impenetrable bush. While this process accords with those outlined in the Forestry Act of 1996, whereby afforestation on private lands was promoted in Jamaica, it presents a unique set of challenges concerning the establishment of nature parks among both land owning and landless small-scale farmers; that is;

the development of such nature parks puts small-scale farmers' stake to their lands and sense of autonomy that comes with landownership in Jamaica into question.

“So long as surplus labor is manifested in agricultural commodities, economic and political power is closely tied to land ownership” (Smith, 1984). This notion of power and landownership presents a precarious set of circumstances concerning Cockpit Country in that the land in question was not owned by an elite class, but by a community member of Bunkers Hill who was forced to relinquish his democratically elected position due to his questioning of the language and process of sustainable development. Yet, TNC and FDJ attempted to appropriate the land in question toward the ends of the LFMC. Given these circumstances the development process proposed in Bunkers Hill was likely to yield uneven outcomes among community members, particularly those with land holdings. However, the strategy employed in the current case certainly takes on a distinct tone of inequity concerning property ownership and use, in that those who were able to qualify their land rights were pressured to lease out their lands for the benefit of others, particularly TNC. Historically speaking, with respect to development initiatives, the GoJ has been instrumental in stripping Jamaican people of their property rights. However, The GoJ would struggle to attain the land by any existing legal act, as the venture involved neither mineral extraction nor heritage preservation. However, the property presented a landscape that was particularly conducive to the establishment of an ecotourism site in Bunkers Hill—river, trees, open areas—at least according to TNC's tourism attractiveness index. With one of the ecotourism locations in the hands of local small scale farmers, TNC and FDJ's establishment of “nature as an accumulation strategy” in Cockpit Country required them to essentially place a “stake” between the landowning LFMC members' rights to property and land

use to provide a basis for the reconfiguration of the production of nature in the realization of exchange values on the global market place. This particular form of tourism is geared toward the more affluent members of Jamaican and international communities, who frequently garner their own wealth from development, seeking to “consume supposedly pristine nature so long as that nature remains pristine, undeveloped” (Smith, 2007). There is an inherent contradiction in this process as it was deemed necessary to strip the land from the local farmers to provide attractions to an elite group that, for all intents and purposes, has participated in producing the conditions that brought about the establishment of the proposed nature preservation ventures.

Building on Smith (2007), the production of an ecotourism venture simultaneously yields commodities that can and cannot be “productively consumed.” The consumable products are those resources produced from in and around the forested areas that have been deemed “sustainable.” Those that cannot be consumed are thoroughly grounded in Luke’s (1997) notion of the “nature cemetery” synonymous with fortress style preservation that was more common in the 1980s and 1990s. Yet the current case yields something more akin to a nature museum-- please look but don’t touch, and be sure to purchase an authentic Cockpit Country keychain on your way out. In agreement with and building on Smith (2007), this paradigm creates conditions of scarcity, whereby the use value of the area is hinged on its ability to realize exchange value in what cannot be consumed, yet is extended through the simultaneous presentation of readily available items for consumption, e.g. “sustainably” produced forest resources and ecotourism ventures. In effect, the establishment of community based LFMCs is reproducing the well known paradigm of access to shoreline areas in Jamaica, whereby these spaces have been appropriated for the tourism industry, parceling nature for people that do not have a “stake” in

Jamaica's nature (Carrier, 2006). In effect, as has been the case concerning seashore access, the sustainable development programs in Jamaica are increasingly working to “evict people from nature” (Katz, 1998) while establishing a voluntary workforce trained in the production of resources that cannot be consumed, at least by the people that live there.

Given this perspective on the production of nature in the current case study, I would like to close this chapter with a description of how the language of sustainable development came to a head and ultimately found resistance in the communities of Cockpit Country. While Smith and Katz lay the path for understanding the unevenness of the production of nature in Cockpit Country, it should be noted that the LFMCs were not a set of people that were particularly willing to succumb to these processes.

Challenging and Appropriating the Processes and Language of Sustainability

The challenges to sustainable development in Cockpit Country took on a form that to a certain extent has been identified in the ICDP and broader sustainable development literature, namely the misappropriation of funds at the community level (Hughes & Flintan, 2001). This has been identified as a major problem in the current case study, but according to the Caribbean Natural Resources Institute (CANARI), “swift and decisive action and the improvement of accountability mechanisms within the groups has minimized the negative fall-out and ultimately strengthened the groups’ management capacity” (CANARI, 2010). This “swift” response, as reported by CANARI, certainly expresses an optimistic tone concerning the internal tensions that the LFMCs were experiencing during this particularly turbulent time.

I will briefly describe the issue of funding misappropriation, and ground it in the analysis of the formation and structure of the LFMCs as described earlier in this chapter. These events began to take shape in January 2010. The chairperson of the SWLFMC had invited me and a Peace Corps officer to attend the annual January 6th celebration of Cudjoe's (a well known 18th century Maroon leader) birthday in Accompong, St. Elizabeth. Following our return to Flagstaff the following evening, as I walked into the town square, community residents began to approach me asking if I knew what was going on at the LFMC office, which was located below the recently constructed visitor center. The LFMC chairperson, the Peace Corps worker and myself were the last people to go into the office before we left for Accompong. As such, the approaching community residents wondered if we forgot to lock the door, which was slightly ajar. I approached the building, but was stopped by people in the square, who advised that I should stay away from the place in the event that anything had been stolen. The chairperson then came up to the village to inspect the office, and we learned that many of the valuable goods that the LFMC had acquired through USAID funding—an industrial food mixer, LFMC hats and t-shirts, and cash—had been stolen. We stood in the town square perplexed, as the chairperson and community members chatted about how during the construction of the visitor center, valuable materials and construction supplies had been left in the town square, and were never touched. However, there had been a complete lack of ecotourism activity since the launch of the Flagstaff Heritage Tours and Trails ecotourism project in October of 2009, and this lack of activity had brought about concern and disappointment in the community of Flagstaff. This activity had been expected to bring more development and tourism dollars to the area, but by the time of this event, had failed to transpire.

This was the beginning of a series of events that would reveal that the LFMC had lost more than just a few items from the office based in Flagstaff. While we never learned who was responsible for the theft, an ensuing investigation of the LFMC cash expenditures revealed that the chairpeople of the South East and South West groups had embezzled 615,000 J (~US\$7,068) of USAID funding from the project, which had been allocated by the Environmental Fund of Jamaica (EFJ). The Northern branch of the LFMC did not experience any of these issues as they had been effectively disenfranchised from the all LFMC development initiatives. But after what the communities that hosted the LFMCs believed was a promising start to the establishment of viable ecotourism and agroforestry enterprises, why would the chairpeople take action to jeopardize the progress to date?

Let me begin by reminding the reader that in the beginning of the project, there was an active resistance on the part of some LFMC participants to the language used by the Small Business Administration of Jamaica training facilitators early in the project. Those resisting this language suggested that facilitators needed to speak in the language of the people they were educating. The ensuing issues, such as embezzlement of project funding by two LFMC chairpeople, culminated in a form of resistance on the part of LFMC participants that became a reproduction of the language and process of sustainable development as it was implemented at the top of the LFMC network, namely by the patron class of TNC and FDJ. Again, recall that the brokers, to a certain extent, acted as the harbingers of development. As directed by TNC, they took on the responsibility of garnering community support to put the LFMCs in place. However, these brokers needed to do more than portray their perceived broker status to continue to garner this community support. Further, while they were not sure of the extent, the brokers suspected

that those in the patron class were using project funds to their own ends. At the very least, they acknowledged that the patron class profited directly from project funds, where the community members were expected to “participate” in a voluntary capacity, even paying LFMC dues, while waiting for the proceeds of development to come. As the SWLFMC chairperson said,

This is about protocols and respect to people who are volunteering their time, because I think like the Forestry Department personnel is getting paid every month. And when we see we are working our ass off night and day to volunteer without pay, when the time comes, because under the auspices of The Jamaica Business Development Center now that came on board after the Small Business Association of Jamaica, that they think I should be the one to form a company. Right? My whole idea, my whole thinking or understanding, my understanding of the entire process, even when this project started, yeah, was that the community itself would own the project. You see what I'm saying? So what I'm just saying is that, that if the community is owning it I wanted to form a company in the community with the community members that manages this project.

Yet the chairperson, while recognizing that the brokers and clients were left out of the immediate profit potential of the project, went on to say,

You know, from the inception as I said, from the powers that be, externally from The Nature Conservancy and the Forestry Department, not USAID, but from TNC's perspective, I saw that some blocking was going on in terms of they did not want to build the capacity of the people in Cockpit Country.

As these tensions grew, tensions that were rooted in the differentiated expectations of community members and NGOs, it became apparent that these programs are frequently based on “weak assumptions” that lead to a bias toward conservation or development as seen in the literature (Simpson, Davis, & Haynes 2010).

I will focus on Flagstaff as this was the location that had the closest community ties to the project, as the LFMC ecotourism project was located there and drew the most interest and attention at the community level. The chairperson, as was described earlier, came to solidify community support through small cash payouts, tobacco, rum and phone cards. While these

offerings helped to garner the support of the community members, they went further to solidify his position as the proverbial “big man” in town. The SWLFMC chairperson had become the bringer of development in Flagstaff—the person who had access to the resources and knowledge of the patron class that was at the center of driving the project. When it was revealed that he had stolen money from the project, community support for his work was so strong that several men in the community openly threatened women in the LFMC who were suspected of speaking against him. This potentially volatile and violent situation arose out of loyalty to the broker of development in Flagstaff, and is starkly reminiscent of the rampant violence that has, only until recently, been common among party loyalists in the client class of Jamaica (Stone, 1980).

While the LFMC member response to the embezzlement that the two chairpeople co-conspired in was mixed, the community response was overwhelming. When the issue came up in the community, LFMC and other community members would say, “me still rate him,” “him do good thing here,” and the like. It was widely understood that the chairperson was guilty, yet it was conveyed that he still helped the people of Flagstaff, even if it was only with small jobs. One community member went so far as to say, “yes, him steal the money, but him give it back to the community!” Another community member wailed in the town square, screaming, “a who help me now?” Much of this was in direct response to the resignation of the former chairperson and the appointment of the incoming chairperson, who was appointed by FDJ rather than being democratically elected by the LFMC participants. The community members felt that the new chairperson did not have the capacity to bring the project “forward” and benefit the community members as his predecessor did. In a similar vein, the members of the SELFMC, while disappointed in their appointed leaders’ corrupt behavior, conveyed a similar tone, with several

people saying that he should be given a second chance. Inevitably, the SWLFMC chairperson was convicted and incarcerated, while the SELFMC chairperson resigned his post.

Conclusions

In this chapter I have attempted to bring together some of the key issues that arose in the Parks in Peril sponsored LFMC program to highlight and analyze the processes of ICDPs in the current case study. It should be clear at this point that there are several fundamental contradictions to the establishment, structure, objectives and outcomes of the LFMCs and the language of sustainable development that was used to guide them. Race, class, gender and education present variables that raise serious concern in these programs, such as the appointment of women to political positions within the LFMCs and the power structures that exist between small-scale farmers and NGOs. The structure of the LFMCs and the events associated with their formation led to increasing group attrition and waning “participation” as the organization increasingly resembled the Jamaican political class structure that had been part of party politics since the 1970s (Stone, 1980), though with decreasing fraud and violence as of late (Sives, 2009). There was a clear patron, broker, and client class system that was hinged on the presentation of material items that met the most basic of needs, rather than a process intent on forming a base of people who rally around ideology, in this case an ideology of nature, if you will.

Education, status and gender were clear factors concerning how people were situated in the LFMCs. Thomas (2004) argues that education was a privilege of the middle class in Jamaica, but it was not required when it came to interfacing with NGOs. The chairperson of the

SELFMC was a pastor—he had the influence to bring people together, yet he had little education. The chairperson of the SWLFMC was articulate and knowledgeable, but was a self-educated Rastafarian with some high school education—not a group considered to be a part of the middle class. The chairperson of the NLFMC was a teacher, who was articulate and educated, but was ultimately pushed out of the project when he resisted the language of sustainable development that threatened to strip him of his property rights. Therefore, in the context of interfacing with NGOs and leading the LFMCs, social capital was attained in various forms—namely, gender, community status, and education. Therefore, challenging Thomas, while mistrust was raised concerning the incoming chairpeople, the issue of race and class and NGO interaction would not seem to be as straightforward as Thomas implied, because in recent years class has become less associated with color as much as status in Jamaica (Robotham, 1991; Austin-Broos, 1994).

The language of sustainability proved to disenfranchise people from the project, ultimately reinforcing the power structures that have been well studied in development and sustainable development (cf. e.g., Ferguson, 1994; Escobar, 2009). However, my analysis offers a critique grounded in the material outcomes of the project. I found there was a mystification of the language of sustainability and its implications among the client class, which ultimately manifested in resistance to the language of sustainability, albeit through corruption and concerns about land security, that is private property.

Perhaps the most pervasive issue, particularly in the Jamaican context, concerns land security and access to resources. These concerns, which were grounded in the development of a largely landless agricultural population stemming from colonial and post-independence land and

forest policy in Jamaica was a central concern in the implementation of projects that require access to private property. In the case of the Cockpit Country LFMCs, the local small farmers, while offering support for these projects through participation or otherwise, were quite skeptical concerning the use of their lands in a project that, through its aim of developing an equitable process of participation in forest conservation and sustainable development, sought to access land leases in Cockpit Country forest-fringe communities for the purposes of ecotourism development. It is critical to consider the views of small holders, whose lands—whether through legal ownership, renting, or squatting—have been pursued through mining, land, and forest policies to name a few. Consider the development of the Jamaican railroad system, whereby large amounts of forested lands were allocated to the West India Improvement Company (Satchell & Sampson, 2003); or the use of forest lands for bauxite company resettlement initiatives, where people were displaced from flat, arable lands and moved to forested lands, including the Bunkers Hill area of Trelawny. Small farmers in Jamaica understandably have a strong attachment to the land and to nature more broadly (see chapter 4), and part of this attachment has been formed through generations of land struggles, whereby the people of Cockpit Country have fought to claim a “stake” in the place where they have struggled to establish their livelihoods. These were the stakes of their participation in these LFMC projects.

Chapter 6: Conclusions

In this dissertation, I have taken an ethnographic perspective to document and analyze the social relations of people working together in Local Forestry Management Committees (LFMC), people's affective affiliation with nature, the history of forest legislation and land use in Jamaica from 1886 to 2010, and the objectives and outcomes of integrated conservation and development programs in the Cockpit Country of Jamaica. In particular I looked at how the LFMCs were formed, experienced and understood by the people participating in them; people's experiences of the relationship between participation in LFMCs and the intersection of race, class, gender, and education; how LFMC participants and Cockpit Country forest-fringe community residents experience and value nature; how the LFMCs have affected their participants' livelihoods and the extent to which they have fulfilled their broader conservation and development objectives; and the implications of Jamaican forest and mining policy in the context of people, nature, and Integrated Conservation and Development Projects (ICDP). In this chapter, I will summarize my findings and hone my critique of the processes of ICDPs that are attempting to work with Cockpit Country forest-fringe communities.

A History of Race, Class, and Nature

The historical relationship between people and nature in Cockpit Country and Jamaica more broadly is clearly rather precarious. This is quite apparent in the historical documents reviewed in chapter 3, from the questioning of Maroon land rights to the broader disenfranchisement of the small farmer class. Revisiting my review of forest and land legislation in Jamaica and its contribution to the development of an immiserated small-scale farming class

stemming from post-emancipation and post-independence forest and land use policies, it is clear that legal acts intended to promote the development of the nation's economy while simultaneously presenting its natural resources as both a source of foreign exchange and a medium of conservation, have been produced and reproduced throughout the history of Jamaica. Consider the language of the Hooper Report (1886), where it was claimed that the history of deforestation in Jamaica is intimately linked to "negro cultivation." Yet, the development efforts of the colonial government, whereby large tracts of forested areas were cleared for the planter class for agriculture as well as a host of other development initiatives, were seen by Wimbush (1935) as "natural and right." These early forestry documents reveal powerful intersections of race, class, nature and access to resources, which powerfully continue in the current context of forest cultivation and the exploitation of forest resources. While these early views of development do stand in contrast to the views of many powerful actors in Jamaica today, particularly those that are concerned with conservation issues, there are stark similarities that warrant careful consideration. For example, while many of the people that I worked with in the upper-sets of the Jamaican class system—groups of people who have access to financial and natural resources—were adamantly opposed to broad-scale development initiatives in Cockpit Country, such as bauxite mining, they were very much in favor of curbing small farming practices and forest cultivation in general that were identified as being unsustainable, while promoting ecotourism initiatives as a viable alternative.

Views such as these are reminiscent of early policy documents reviewed in chapter 3, as well as some of the more recent forestry documents that continue to lay blame for deforestation on the local populace. While bauxite was not part of the development initiatives of powerful

outside organizations such as USAID and The Nature Conservancy, the phenomenon of harvesting nature for people that do not have a “stake” in Jamaica’s nature was pervasive, culminating in projects associated with ecotourism, craft production, and agroforestry. These forms of sustainable forest production are closely linked with the intersection of race, class, gender and education in Jamaica. Historically speaking, access to forest resources, as explained throughout this dissertation, is intimately linked to race and class. Those in the more powerful sets may achieve access to these resources through antiquated mining and forest policies, which quite explicitly restrict access to those that are in dire need, such as people living in Cockpit Country forest-fringe communities. One such example concerns Special Exclusive Prospecting License 535 (SEPL 535), which was granted to the Aluminum Company of America by the Ministry of Energy and Mining of the Government of Jamaica to prospect for bauxite in several areas of concern in Cockpit Country. Further, access may also be sought out through the tourism industry, again presenting the distinct possibility of catering Jamaica’s nature to foreign nationals, as is now experienced on the lush coastlines (cf., Carrier, 2006).

Yet, in the context of the documents reviewed in chapter 3, access to forest resources for the residents of Cockpit Country may be achieved through their participation in forest conservation, predominantly in the form of ecotourism. In this instance, public participation would be appropriated in sustaining the natural resources that benefit the nations economy, while disenfranchising the small-scale farming class from the natural resources of Cockpit Country. Through this historical lens, I argue that the antiquated views and policy suggestions presented in the forestry documents that were reviewed in chapter 3 have been reproduced in the current context. While the historical implications concerning access to forest resources have become a

fundamental critique in political ecology research (cf., Peluso, 1992), the rebranding of ancient forms of exploitation, as described in chapter 3, is particularly visible in the context of the Cockpit Country LFMCs.

Race, Class, Education, Agricultural Production, and LFMCs

The LFMCs were intended to provide avenues for the rural poor, particularly younger generations, with alternative livelihoods that promote conservation, either through agriculture or ecotourism. What these plans ignored was people's suspicion of outside actors—a suspicion closely tied with the overwhelming individualism of the small-farmer class stemming from colonialism—and their ability to produce action. Stories of USAID officials and hosts of politicians parading through Cockpit Country, and elsewhere in Jamaica, to promote programs and seek political support were commonplace. Yet, these stories from the bottom always expressed that once programmatic or political support had been garnered from the local populace, these people in the powerful sets would not return until they sought support for another program or round of elections, a situation reminiscent of Carl Stone's (1981) analysis of the Jamaican political system. As a result there was little local buy in, and environmental practices in Cockpit Country saw little change except decreased agricultural production and increased crime, which were intrinsically linked to the collapse of agricultural export markets in Jamaica.

A paradoxical theme promoted by the LFMCs concerned agricultural production for domestic and export markets. While the agricultural production side of the LFMC initiatives never came to fruition due the cessation of funding and technical support from USAID and TNC, the initial groundwork laid out by these organizations dictated that food stuffs produced by

LFMC members would be strictly allocated toward the domestic and export market place. As one TNC employee said during the initial LFMC establishment meetings in June of 2008, “this means you can’t give produce to your family or neighbors.” This process threatened to interfere with cooperative systems that have been in place in Jamaican agriculture stemming for generations, wherein people would help their neighbors during harvest time (cf., Girvan, 1993). Further, when establishing a new farm, people would, as they still do, rely on their neighbors in establishing their practices. For example, several of the people I worked with in Cockpit Country mentioned how their neighbors would provide “a few head of yam” to get their farms started and feed themselves during this initial production period. Yet, LFMC practice, while not well enforced, dictated otherwise, standing in tension with a Jamaican history and culture of agricultural production in the small farmer class.

The LFMC approach to agricultural production is quite paradoxical, as there is a vast unevenness between Jamaica’s agricultural output for local and foreign consumption. This phenomenon is reinforced in the ecotourism initiatives in Cockpit Country through the introduction of production systems that do not promote food security for the local populace. There is a possibility that they would, quite paradoxically, further dependence on imported goods through the replacement of forest and forest-fringe cultivation and encouraging the formation of a rural proletariat; one possibly tied to ground rents established through the appropriation private of lands for ecotourism areas and imported food stuffs. These practices ultimately disenfranchise people from their immediate environments, which I argue may produce an estranged relationship with nature, one rather characteristic Smith’s “ideology of nature” (1984), whereby the environment is “denaturalized” in the face of political and economic forces. As such, I argue that

the establishment of LFMCs in Cockpit Country is working to disenfranchise people from the resources upon which their livelihoods are based, and thereby proletarianize many people in the small farmer class who have thus far resisted proletarianization. This process of proletarianization ultimately re-forms people's conception of "external nature" through altering societal views of nature that are grounded in labor (cf., Harvey 2006). Such practices of agricultural production bring the laborer into intimate contact with the medium on which they stake their livelihoods. Removing this process through proletarianization focused on presenting the nature of Cockpit Country to foreign nationals may, in effect, compromise this relationship. I argue that the process of proletarianization in the rural areas of Cockpit Country will produce an estranged relationship with nature in the human geography of Cockpit Country.



Figure 7: Proposed Cockpit Country buffer zone (The Forestry Department of the Ministry of Agriculture of Jamaica, 2007)

I have briefly reviewed some of the key ethnographic moments of people and nature that I documented in my fieldwork and aligned them with the history of forest and land legislation and how these policies have throughout history pursued the small farming class, constricting access to land and resources. The small-scale farming class of Jamaica has played a pivotal role in the history of Jamaican agriculture, one that has provided food security to people in forest-fringe communities and broader rural areas. Up to the 1990s, many practiced cultivation in forested areas, as land-use policies pushed them to the margins, the physical margins being the forest in this case. However, as access to arable land was increasingly restricted to small farmers, forest policy took a similar approach, further restricting small scale cultivators to the most limited areas of land, what is now known as the forest buffer zone (fig. 7). This imaginary line was created by researchers and environmentalists intent on demarcating areas that should be restricted from bauxite mining, but, thanks to current policy suggestions, has become a human buffer zone, one that harnesses the small farmer class that has been deterred from engaging in agricultural practices outside of the buffer, on either side.

LFMCs, People, and Nature

Central to this dissertation, but markedly absent in the broader political ecology literature, is an examination of people's experiential and affective affiliation with nature in the context of environmental practices. My rationale for this approach is to extend the neo-Marxist and discursive approaches inherent in political ecology's conceptual approach to analyzing environmental conflict to consider how people think and feel about nature. As political ecology concerns the relationships between nature and society, and the power structures that govern these

relationships (Escobar, 1996), I argue that an examination of people's experiences of and affective affiliation with nature further informs political ecology through the development of an understanding of the nuanced ways in which people relate to nature. Further, I have situated this analysis within the context of environmental conflict, affording a unique opportunity to examine people's affective affiliation with nature and the corollaries of sustainable development and broader land legislation. For example, in the context of the Cockpit Country LFMCs, people in the more powerful sets tended to have an idealized and fetishized relationship with nature. In contrast, the local residents tended to see themselves and the environment as a system. Kellert's (2002) typology clearly depicts the people of Cockpit Country as having strong ecologicistic, moralistic, and naturalistic attitudes toward nature. Further, these types of experiences expressed from the people at the bottom of the LFMCs are critical in fostering a more situated understanding of and connection to nature; and these experiences are typical of people living in forest fringe communities of Cockpit Country.

Taking people's experiential and affective affiliation with nature in the context of the LFMCs, it is rather telling that the bulk of forest legislation and forestry documents point to the destructive agricultural practices of small farmers in Jamaica—again, the LFMCs are clearly a rebranding of colonial exploitation. However, as one of the objectives of the LFMCs was to sensitize communities to environmental issues—the rationale being that small farmers in Cockpit Country are unaware of the effects of unsustainable agricultural practices and forest cultivation—examining people's everyday environmental practices paired with an examination of their connectedness to nature was instrumental. As discussed in chapter 4 and argued by Mayer and Frantz (2004), people's willingness to protect nature is highly correlated with a strong connection

with nature. In the current context, this would include participation in programs geared toward the protection of nature, such as the LFMCs. This understanding and approach provided a basis for considering people's everyday actions alongside their lived experiences.

One such example of an LFMC initiative designed to curb generations of environmental practices concerned the "living yam stick program." While the benefits of this program were recognized by many but not all farmers participating in the LFMCs, the broader populace of Cockpit Country expressed nuanced views concerning the effectiveness of this program in terms of conservation and production. To begin, this issue raised the question of for whom was the forest being conserved. Tree saplings reproduce quickly in Cockpit Country, and while clearing mature trees is a conservation concern, the people of Cockpit Country argued that clearing forest undergrowth, including tree saplings, was a necessary practice in affording people's mobility in the forest. In the communities where I worked people used the forest for various purposes; including relaxation, meditation, and cultivation. Further, people's recognition of the forest as a system, which includes people, presents an understanding of and connection with nature that ultimately leads to a broad conservation ethic, as was explicitly expressed by the people in these communities. Yet, this ethic stands in tension with the ethics of USAID, TNC, and the design of the LFMC programs. This is not to say that the LFMC programs sought to completely restrict forest access, but to limit "traditional" activities in the forest. However, rather paradoxically, the LFMCs embraced the inclusion of ecoparks that used timber forest products and invasive species, such as bamboo, for construction materials (fig. 21). With this understanding, some people chose to participate in the LFMC, yet ignored some of their mandates, such as restrictions on hiking in the forest with machetes (an activity that I quite

frequently participated in alongside LFMC members) and harvesting tree saplings for yam sticks (a common, yet decreasing practice due to the introduction of bamboo (fig. 22)). Others familiar with the LFMC but not members noted that such restrictions did not consider needs of the people, such as food security.



Figure 21: Bamboo and timber forest products used in the construction of an eco-park — Bunkers Hill, Trelawny.



Figure 22: Bamboo used in place of traditional yam sticks — New Hope, Trelawny

Finally, with respect to the LFMCs and people's disparate views of nature, it is clear that the people of Cockpit Country have a strong connection to nature, one that is rooted in their work and play in childhood and adolescence, and agricultural production and broader livelihood practices in adulthood. However, it is quite important to note that my analysis uncovered some shifts in the environmental values expressed among the local population. These values were shaped through people's participation in the LFMCs, prompting an emergent community-based understanding that people in forest-fringe communities, those considered to be in the "lower sets," are the last ones to benefit from environmental conservation and sustainable development. Yes, the promises of LFMC participation were quite attractive. However, participation came

with caveats, e.g. using private lands for public projects and curbing generations of environmental practices. As such, LFMC participants and other community members came to understand that the forest resources that they had based much of their livelihoods on were a medium of profit for outside actors, such as TNC and The Water Commission of Jamaica, just as these resources had been for bauxite mining and railway construction in past years. I argue that this community outlook led to community based tension between generations of environmental knowledge and practice, and the promises of sustainable development in Cockpit Country. Further, I argue that the LFMCs pitted the values of Cockpit Country community members—values developed in the context of the life circumstances of people living in forest-fringe communities—against the overtly intrinsic and covertly instrumental values embedded in the processes of ICDPs.

The Problems and Potentials of Integrated Conservation and Development in Cockpit Country

My research has addressed the various issues that influence the collaboration of small farmers in Cockpit Country with people from the international conservation arena, international development organizations, and national agencies in the development of projects intended to promote alternative livelihoods for the rural poor while conserving Jamaica's forests. As I noted in chapter 5, projects such as those promoted by the LFMCs, which draw on the collaboration of actors with varying interests and power, can mask the "inequalities and cultural distinctions" that are inherent in sustainable development projects due to the focus on economic rather than ecological rationales (Banerjee, 2003). While this has been well documented in sustainable development projects throughout the global south, and addressed in Chapter 5, I would like to

extend the analysis beyond the tendency to mask “inequalities and cultural distinctions,” to look at the masking of these inequalities in the context of democratic governance.

In the current case study, it is quite clear that there are inequitable power relations between the small-scale farmers, Maroons, and broader forest-fringe community members and NGOs/INGOs operating in the area. These inequalities were embedded in the democratic structure of the LFMCs, which were starkly reminiscent of the sort of clientelism that had been a fundamental part of the Jamaican political system up to the turn of the 21st century (Sives, 2009). The introduction of clientelism in LFMC governance worked to produce and reproduce the broader power structures and inequities that the “poorer sets” and Maroons of Jamaica experienced from the era of colonialism. These are structures that have worked to disenfranchise people from their lands—whether they can produce a land title or not—throughout the history of Jamaica. Further, these power structures have long contributed to the proletarianization of the local labor force. In the present case, the intent appears to have been that the proletariat would constitute a workforce designed to present the forests and broader resources on which they have developed generations of livelihoods to those that did not have a stake in the nature of Cockpit Country; i.e. more affluent Jamaicans and ecotourists from abroad who are keen to “consume supposedly pristine nature so long as that nature remains pristine, undeveloped” (Smith, 2007). This phenomenon is reminiscent of Hooper’s (1886) suggestion that the inclusion of Maroons in environmental protection would be an ideal method for guarding the forests against “negro” cultivators—a suggestion that I argue was an initial attempt to proletarianize the Maroons of Cockpit Country within the process of appropriating nature for those that do not have a stake in the nature of Cockpit Country. Further, this desire to consume pristine nature in the current

context, whether literally or figuratively, was recognized by LFMC members. With this recognition of people's desire to consume the nature of Cockpit Country came a profound realization that the LFMC process was poised to "evict people from nature" (Katz, 1998) by restricting access to forest resources and using private lands for public projects, establish a voluntary and low-paid workforce, and present the resources of forest-fringe communities to people who do not need them to sustain their livelihoods, but desire them to satiate their curiosity and in so doing reinforce the dominant social, political, and economic hierarchy of Jamaica.

Given the inequalities that the LFMCs were poised to reproduce throughout Cockpit Country, it is critical to ask how such a process was presented and accepted, even by those that recognized the broad inequalities in such programs. I argue that the language of sustainable development presented an elixir. The monetary rewards of participation offered irresistible opportunities to small farmers and other community members in Cockpit Country. These included access to food, education, and alternatives to farming, particularly for people in younger generations. Yet this language was challenged and appropriated. LFMC and broader community members began to see the LFMC projects as opportunities for the more powerful sets to benefit, as indicated by a 54 year old man in the following:

So it's all about the bottom line, big man—the bottom line! The money! 'Cause him claim that him job you know—environmental protection, a them job! Yeah, environmental—wha ya call it again—yeah, a them job. So them need to be paid to come disseminate information, which I no care! I don't give a 'F' if, what me say, the people a want to believe what them say, want accept it, want implement it, or not, see, they no care. What they care about? Getting the project up so him can use funding. After him use funding, him can go about him business. Me no love that. That's not sustainable!

Further, some executive committee members participated in the same illusive practices that the language of sustainability promoted, practices that preach inclusion and equity, yet benefit only the privileged few. And this process bred true: INGOs and a some of the executive committee members did benefit, but the executive committee members were ultimately punished through incarceration and community exclusion, while the TNC profited, allowing their Kingston, Jamaica office to maintain their human resources through money garnered from managing USAID funding. Further, USAID temporarily maintained their relevance in Jamaica through funding TNC and the LFMCs. In essence, the LFMC process advanced the history of land struggles and social and political marginalization of the rural poor throughout the history of Jamaica.

Word, Power, and Sound - A Bottom-Up View

QT, the Rastafarian gentleman mentioned in the first chapter, who also identifies with his Maroon ancestry, saw me as a seeker “of truth and knowledge,” and sought me out to explain that the LFMCs were not always what they seemed to be. Through his metaphorical explanation that every story has many sides, I came to realize that he may have been speaking about more than the events that community members throughout the three areas of Cockpit Country where the LFMCs were based may have witnessed. He spoke of the Rastafarian notion of “word, power, and sound,” a phrase that has come to symbolize the power of speech. However, the power of words fails when received by deaf ears. Yet, QT energetically expressed his concerns to me in the hopes that my ears would transport his words to a broader forum, where they would

be received with consideration. When QT first spoke with me about the LFMCs, I did not realize how far his words reached until writing the chapters of this thesis.

When QT began to explain that there was more than one side to the story of the LFMCs, he drew a circle on the ground. I identified the shape as a circle, which he confirmed and followed by repeating the drawing. When I indicated that it was another circle, he looked at me with disappointment, shaking his head. I quickly corrected myself and said that it was the letter O, to which he nodded and smiled. QT proceeded to draw letters and shapes that I identified as shapes that were similar, but with very different meanings. With QT's initial drawing, he was specifically speaking of the structure of the South West LFMC, or a lack thereof; the South West LFMC at that time had a chairperson, but the remaining executive committee members were uncertain of their positions and the vice chairperson role had not been filled since the committee's inception. This led to a lack of oversight in the South West region, culminating in some of the fraud issues discussed in chapter 5. Further, when the chairperson stepped down and was replaced by a community member who was appointed by an FDJ officer, the community members began to see that there was a clear difference between Os and Os; that is, their voice had been marginalized in the shadow of more powerful and corrupt actors.

Another example of uneven power relations concerned funding. LFMC participants knew that their organization was funded through various grants, predominantly through USAID that were managed by TNC. However, none of the LFMC members received an accounting of funds that were distributed to the LFMCs. Further, LFMC members had no control over the allocation of those funds—this was handled exclusively by TNC. When 12 million Jamaican Dollars (~US \$123,000) that had been set aside for ecotourism development in the North and

South West LFMCs was directed exclusively to the South West, community tension in the Northern region came to a head. Many community members blamed their former chairperson for not accepting TNC's offer of 10,000 J (~US \$105) for a 10 year lease of his private property—they would have received ecotourism funding if he had accepted the deal—while others felt that they had done as much as the South Western communities to deserve the funding. Further, the LFMC members in the South East could not understand why their area had not been slated for inclusion in such a potentially profitable enterprise.

In this brief example, which is broadly illustrative of the power relations among LFMC participants, there is a clear uneven power relationship between TNC, the local landowner/LFMC participant, and the community based LFMC members. For TNC, the development of an ecotourism project in Bunkers Hill was an opportunity to glean funding for their management role; the landowner saw this development initiative as a means for TNC and broader community members to profit through the use of his private land, while restricting his land use and profit potential; the community based LFMC participants saw the project as a lost opportunity, blaming the landowner for the projects demise. At the community level, these views are starkly reminiscent of the blatant individualism amongst the small-farmer class (Robotham, 1991). Concerning community interaction with NGOs, these cases are certainly representative of the uneven power relations that work to propel the commodification of nature in the process of saving it (Hale, 2002). These critical contexts provide new insights into the process of ICDPs that are based on local democratic governance, whereby the demise of such projects, according to the more powerful sets in Jamaica, is rooted in the individualism of the small-farmer class.

And this point was clearly recognized by community members, as illustrated in the following comment from a 24 year old farmer:

I think more and more everyday, the people have lose them moral status. Because of watching each other and trying to gain a individual power—that's the power struggle, you know. Everybody try to break down one another. But I would really like something to develop fi the youth them a come. After this generation can reach say yo, there's a way, there's a way, you know.

Yet, I argue that this notion of individualism that is pervasive throughout Jamaica is not the root cause of the issues of fraud and the like experienced in such projects. Instead, it is the language of sustainable development and its guiding framework for the development and implementation of ICDPs in Jamaica that is solidifying the phenomenon of individualism by framing such projects within the dominant political economy of Jamaica, i.e. resource extraction and tourism, in particular.

My point in analyzing these power relations is to express an overall concern with such programs; in this context, the collaboration of people in the small farming class with people that have very different motives concerning conservation and development needs to be approached in a way that effectively puts power and decision making in the hands of those who have the most at stake, i.e. small farmers and other community members in the context of the current case study. These are projects that people pit their livelihoods on, projects that promise alternative futures. Yet, I argue that the history of race, class, and gender and the individualism of the small-farmer class alongside the history of forest and land legislation in Jamaica stands at odds with the implementation of these programs, particularly when those in more powerful sets ignore such history; these are histories that are recalled in everyday conversations in Cockpit Country communities, from disillusionment with the corollaries between slavery and employment

circumstances to critiques of the global economic system. Therefore, I argue that practices of integrated conservation and development, i.e. sustainable development, should define such essential terms of inclusion, participation, information sharing, and transparency in the context of the social and political history of those they claim to help, from people to forests. In other words, these practices need to be developed by said “stakeholders.” When people and forests exist as a system (see my analysis of people’s affective affiliation with nature in chapter 4), particularly one that has been marginalized throughout a country’s history, there is bound to be deep-seated suspicion concerning the intentions and motives of outside actors, such as TNC and USAID. Yet, the method of alleviating these concerns was to engage small farmers and broader forest-fringe community members in determining the potential outcomes of LFMC projects. However, outcomes are the last step in such a process; practices of sustainable development would benefit from people’s inclusion in deciding the various paths to achieving the desirable inroads and outcomes of sustainable development. Further, focusing solely on outcomes only exacerbates the individualism that such projects should be trying to counteract through cooperative structures. In the current case study, the attempts to extend Jamaica’s tourist offerings to include the central regions of the country has only proven to reify this sense of individualism and undermine a profound experiential and affective affiliation with nature within the small-farmer class and broader population of Cockpit Country.

Word, Power, and Sound - Toward a Participatory and Ecological Approach

If such projects are to continue, how might such a desirable form of inclusion be generated between people with disparate backgrounds and uncertain futures? Further, how may

such a process be equitably negotiated between NGOs, who need to benefit from such projects to warrant their participation, and small-farmers and community members, who also need to benefit in some way. For one, concerning the high level of local knowledge concerning the state of the forests and the impacts of agricultural production in forested areas and an affective affiliation with nature grounded in generations of environmental practices, I pose a rhetorical question: are people living in the forest-fringe communities better positioned than development agencies and NGOs to develop sustainable programs that focus on ecological rationales, per Banerjee's (2003) concerns? The irony of the case is that the small-farmer class and community members of Cockpit Country have developed innovative farming and business practices throughout lifetimes of income diversification, which were entertained by the people in the more powerful sets. Yet, TNC continued to devote the bulk of the funding toward ecotourism rather than the development of sustainable products, such as banana paper (paper made from unused fruit). While the more powerful sets openly supported these enterprises and provided funding for the acquisition of materials needed to see such projects materialize, albeit on a small scale, these "cottage industries" paled in funding acquisition and scale to the crown jewel of the LFMCs—ecotourism. Further, as the projects failed to benefit the community members, these materials were stolen, and two of the executive committee members were identified in fraudulent activities that ultimately made it difficult to acquire additional funding. However, if such projects were to move forward, based on community members' profound knowledge of forest systems developed through lifetimes of work and play in the forested areas of Cockpit Country, as well as a host of other income generating activities, then local knowledge is the ideal platform for developing

sustainable development projects that benefit the local populace and work to encourage forest conservation—a process of conservation for the people, by the people.

Yet, this process did not fall into the purview of the LFMCs, as TNC and USAID had set the LFMCs sites on ecotourism—this being a development initiative that Hooper (1886) had identified over 120 years earlier. Further, the executive committee members were eager to maintain the dominant development view that the more powerful actors supported, a phenomenon reminiscent of the role of brokers in the context of clientelism. As executive committee members struggled to maintain their community leadership roles and organize community members to participate in LFMC activities, some of the executive members only further exacerbated these dominant power hierarchies by emphasizing the fruits of ecotourism in these communities, per the purview of TNC, USAID, and FDJ, the patrons—at times, push came to shove, where TNC and FDJ disrespected the executives that looked to them for guidance. In turn, this phenomenon was reproduced between brokers and clients. When alternative practices were suggested, such as guava jam production, executive committee members would listen with interest, but were thoroughly overwhelmed with maintaining LFMC initiatives as set out by TNC and USAID, where they could hardly find time to maintain their own livelihoods. In essence, these projects started with people in the powerful sets listening to people in the rural communities of concern. In turn, as the LFMCs were established under rules of democratic governance, the executive committee members listened to the LFMC members and broader community members. However, when it came to developing ecotourism initiatives, which involved the majority of the project funding, the process of listening was replaced with

directives, directives that clearly disregarded people's local knowledge and relationship with nature.

The LFMCs claimed to include a participatory process, which touted inclusion, integration, information sharing, transparency, and efficiency. However, as I argued in chapter 5, the language of sustainable development in this case was grounded in processes of development that have dominated for the last 50 years in Jamaica; that is, a top-down and exclusionary process. Therefore, I argue that processes that are hinged on the co-production of knowledge, such as participatory action research (cf., Chawla, 2001; Freudenberg, 2011; Hart, 1992), are better suited approaches to ensuring inclusion and equity in developing and sustaining Cockpit Country. It is critical to introduce processes where knowledge is co-produced, not dictated as exemplified in chapter 5. Recall one of the training sessions, where a community member had asked the facilitator for an explanation of the lesson, when he said, “when me look pon de tv in de evening, de Prime Minista cum on an se wut a gwaan an me undastan every word, but me ca'an understand a ting unu se.” The facilitator, in utter dismay, replied by saying, “it's not my fault if you can't understand me.” This interaction is a clear-cut example of the type of interaction that took place between project facilitators, who live in the urban areas, and community members. Therefore, I argue that the stakes of people's participation in Cockpit Country based sustainable development programs need to take a radical shift, one that moves from the land struggles that have been pervasive among small scale agriculturalists since colonialism, to one that promotes an understanding of people's affective affiliation within the context of sustainable development and embraces the co-production of knowledge concerning

broader social, political, and environmental issues that concern these communities in an effort to reframe sustainable development in Jamaica.

The question is, what would such a program look like? There is a broad understanding throughout the world, which is ever present in Cockpit Country, that the environment should be preserved for future generations. When this idea is expressed, children are invariably drawn into the picture. As such, I believe my young farmer friend's words resonated with the objectives of sustainable development when he said, "*...I would really like something to develop fi the youth them a come. After this generation can reach say yo, there's a way, there's a way, you know.*" All contradictions concerning the LFMCs aside, the area that received very little focus, aside from the odd school visit by LFMC executive members, was environmental education and participation concerning young people. Given the artificial claims of USAID and TNC concerning the immediate concerns for protecting Cockpit Country, as well as TNC's recognition of the necessity for a more developed sustainable development education program for the people of Cockpit Country, educational programs focused on youth participation in addressing environmental issues are poised to 1) afford a space and place to foster the profound experiential and affective affiliation with nature that I documented in the adult population of Cockpit Country—an affiliation that many people fear is fading in the younger generations—and 2) situate this affiliation with nature within educational programs concerning the broader political, social, and economic structures that concern this dissertation; that is, the relationship between nature, society, and power. I propose that the LFMCs would be an ideal platform for developing these programs, whereby the LFMC participants would work with young people in the area, sharing their experiences of the conservation and development programs that I have documented in this

dissertation. Such participation would provide a medium for the young people of Cockpit Country to learn about and critique the issues concerning the nature on which their livelihoods depend, particularly in the context of the LFMC's recent attempts toward sustainable development. I argue that this type of program would be better suited to promote an understanding of people's affective affiliation with nature while fostering the co-production of knowledge concerning broader social, political, economic, and environmental issues that concern the communities of Cockpit Country. If such a radical shift were embraced, then, perhaps, an "O" just might be an "O."

Appendix A: Interview protocol for patron groups

1. Tell me about your work with XXX
 - a. What is your role there?
 - b. What do you do there everyday?
 - c. Who do you interact with?
 - d. Who do you report to?
 - e. Who do you supervise?
 - f. What are the goals of the XXX agency projects on which you work? What sorts of outcomes have you achieved?
 - g. What is your (institutional) management strategy? Why are you using a management strategy in that particular form (why participatory management)?
2. Did you work in environmental conservation before you joined XXX?
 - a. If so, what did you do?
3. Tell me about the Cockpit Country LFMC project. Who is involved?
 - a. What has been accomplished so far?
 - b. What do you think will come out of this project as it develops?
 - c. What problems have you encountered thus far?
4. What other agencies are involved in the project?
 - a. What are their roles?
 - b. Are there any governmental or political roles? What are they?
5. What's going on with bauxite mining in Cockpit Country?
 - a. What are the problems with bauxite mining?
 - b. What are the benefits?
6. Do you ever visit the forest?
 - a. What do you do there?
 - b. Do you do any work there?
 - a. So what do you like about the forest? What don't you like?
7. What's your familiarity with Cockpit Country?
 - a. Have you ever lived there?
 - b. Do you do any work there?
8. How old are you?
9. Where do you live?
10. Where did you grow up?
11. What is your level of education?

Appendix B: Interview protocol for broker and client groups

1. I have some questions about your household.
 - a. Who lives there?
 - b. What do they do?
2. What do you do for work?
 - a. Are there any seasonal shifts in your work?
 - b. Do you have any side jobs? (If necessary)
3. Do you ever visit the forest?
 - a. Do you do any work there?
 - b. So what do you like about the forest? What don't you like?
4. Tell me about the Cockpit Country LFMC project.
 - a. Who is involved?
 - b. What has been accomplished so far?
 - c. What do you think will come out of this project as it develops?
 - d. What problems have been encountered so far?
 - e. Does it change what you do in your work? What about your personal life?
5. What do you do in the LFMC program? (For program participants only)
 - a. What is your role?
 - b. What are your responsibilities?
 - c. What do you like about your role in the LFMC? What don't you like?
6. What agencies are involved in the project?
 - a. What are their roles?
7. What's going on with bauxite mining in Cockpit Country?
 - a. What are the problems with bauxite mining?
 - b. What are the benefits?
9. How old are you?
10. Where do you live?
11. Where did you grow up?
12. What is your level of education?

Appendix C: Connectedness to nature survey

(Mayer & Frantz, 2004)

1. I often feel a sense of oneness with the natural world around me.
2. I think of the natural world as a community to which I belong.
3. I recognize and appreciate the intelligence of other living things.
4. I often feel disconnected from nature.
5. When I think of my life, I imagine myself to be a part of a larger cyclical process of living things.
6. I often feel kinship with animals and plants.
7. I feel as though I belong to the Earth as equally as it belongs to me.
8. I have a deep understanding of how my actions affect the natural world.
9. I often feel a part of the web of life.
10. I feel that all inhabitants of Earth, human, and nonhuman, share a common life force.
11. Like a tree can be a part of the forest, I feel embedded in the broader natural world.
12. When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature.
13. I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds on the trees.
14. My personal welfare is independent of the welfare of the natural world.

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