ABSTRACT

MARINE CONSERVATION AND VOLUNTEER TOURISM:
EXAMINING COMMUNITY PERCEPTIONS IN SARTENEJA, BELIZE

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This thesis critically examines claims that volunteer tourism is an ideal form of support for conservation and community development. Despite increasing attention to communities in volunteer tourism, there remains a need to examine local perceptions of whether, and how, benefits are provided. Building on a framework of indicators for volunteer tourism, this thesis uses a case study of ‘Blue Ventures’ in Sarteneja, Belize, including surveys, interviews, and focus groups, to assess community perceptions of volunteer tourism. Local residents identify positive economic and social impacts of volunteer tourism, although there is also a widespread perception that benefits are unfairly distributed. These findings are interpreted using insights from political ecology, to examine how political, economic and social processes influence who benefits from volunteer tourism and how these benefits are perceived. More nuanced understandings of the impacts of volunteer tourism on communities is required, to ensure these programs benefit both conservation and communities.
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List of Abbreviations

BAS: Belize Audubon Society

BCDC: Bacalar Chico Dive Camp

BCNPMR: Bacalar Chico National Park and Marine Reserve

CBC: Community-based conservation

CBNRM: Community-based natural resource management

MPA: Marine protected area

NGO: Non-governmental organization

SACD: Sarteneja Alliance for Conservation and Development

SFA: Sarteneja Fishermen Association

SHG: Sarteneja Homestay Group

STGA: Sarteneja Tour Guide Association
CHAPTER 1: INTRODUCTION

1.1 Context

Oceans are intrinsic to the health of the earth, contributing to important global physical processes, harbouring immense biodiversity, and providing innumerable benefits to humans in the form of economic, social and cultural benefits (UNEP, 2006). However, oceans and the marine resources societies so heavily rely on face enormous impacts worldwide, from pollution to overfishing and climate change (Halpern et al., 2008).

Within this ecological context, significant political and socio-economic changes have occurred with profound implications for marine conservation. First, a 50% decrease in conservation spending by governments and multilateral agencies in the last ten years has left room for both new actors and new approaches to fill the gaps left by reduced state involvement (Agrawal and Lemos, 2007; Lorimer, 2009; Wearing et al., 2005). This has been characterized as a shift from state-led to multi-actor environmental governance, where communities, private businesses and non-governmental organizations (NGOs) have become key actors in conservation (Agrawal and Lemos, 2007). Second, market-based conservation mechanisms have been growing in popularity. Market-based conservation can be defined as “the continuing reconstitution of the relationships between people and between people and “nature” according to the market […] with a special emphasis on devolved governance that facilitates self-regulation” (Büscher and Dressler, 2012, p.369). Tourism, especially eco- and volunteer tourism, has emerged as one of the most frequently promoted of these approaches (Agrawal and Lemos, 2007; Levine, 2007; Lorimer, 2009; Wearing et al., 2005). While estimates of the extent of the volunteer tourism industry are difficult to attain, and can range widely, it has become one of the fastest growing sub-industries in the last 20 years (Tomazos and Butler, 2012). As of 2008, its’ estimated value was $1.7 - $2.6 billion, with 1.6 million volunteer tourists taking part each year (TRAM, 2008).

Volunteer tourism, which began in the United Kingdom in the 1980s, is a type of alternative tourism where tourists pay a fee to participate in organized volunteer work while on holiday; this could include activities such as building schools, or teaching English abroad (Cousins, 2007; Wearing, 2001; Wearing and McGehee, 2013). Eco- and conservation tourism can be considered as forms of volunteer tourism because they frequently utilize volunteers and they are “nature-based, involve an educational aspect, and appear to be environmentally and
socio-culturally sustainable, in a way which enhances the natural and cultural resource base of the destination and promotes the viability of the operation” (Cousins, 2007, p.1020). In the context of marine conservation, volunteer tourism programs are mainly run by NGOs, and offer paying volunteers the opportunity to participate in biophysical data collection, monitoring of coastal environments, and environmental education and outreach (Cousins, 2007; Halpenny, 2003; Wearing and McGehee, 2013).

The marine conservation volunteer tourism operator at the centre of this research is UK-based NGO Blue Ventures. Blue Ventures promotes “market-based solutions to marine conservation,” (Blue Ventures, 2016a) including volunteer tourism, and is also committed to working with communities, “developing conservation models that work for people” (Blue Ventures, 2016b). Blue Ventures runs a volunteer tourism program in Belize wherein volunteers collect data in Bacalar Chico National Park and Marine Reserve (BCNPMR), doing activities such as reef fish and manatee surveys and culls of invasive lionfish. As part of their experience, they also spend a short amount of time in Sarteneja, the village where Blue Ventures headquarters is located. While in Sarteneja, volunteers pay to stay with local families and participate in Blue Ventures environmental education programs in local schools and at community events.

Such conservation-focused volunteer tourism programs are frequently promoted by a variety of academic and non-academic literature as an ideal form of support for marine conservation and an ideal development solution for communities. Proponents focus on the capacity of these programs to provide policy-relevant science and funding to help guide conservation efforts, and the economic and social benefits that can accrue to local communities (Brightsmith et al., 2008; Halpenny, 2003; Keese, 2011). In this way, volunteer tourism is often proposed as a panacea for complex conservation and rural development issues (Simpson, 2004). However, research on NGOs and communities in conservation shows that in many cases, market-based approaches to conservation warrant further attention because they may result in unintended negative consequences such as the exacerbation of political, social and economic inequality (Agrawal and Lemos, 2007).

Despite growing attention paid to the role of communities in the volunteer tourism literature, they remain the least studied aspect of volunteer tourism, relative to the individual volunteer or the organization providing the experience (Uriely et al., 2003; Wearing and
McGehee, 2013). While it is commonly accepted that successful conservation requires careful consideration of communities (Dressler et al., 2010), the role of communities in conservation and volunteer tourism projects, and the interactions between NGOs as conservation, tourism and development actors, have so far not been adequately addressed. There remains a lack of research that examines whether, and how, local people gain benefits through volunteer tourism programs, and methods for assessing this (Lupoli et al., 2014).

This study draws on recent volunteer tourism literature attempting to fill this research gap through the development and use of indicators. Indicators, defined as a “… means to identify and measure the results of our actions” (World Tourism Organization, 2004, p.8) have been widely used in conservation, tourism, and sustainable development literature more broadly, and have been proposed as one method for accounting for local impacts and perceptions of volunteer tourism (Lupoli et al., 2014). While indicators have the potential to be promising tools in other areas of tourism (for example, sustainable community tourism (Choi and Sirakaya, 2006)) some scholars suggest that the use of indicators in conservation should be carefully assessed (Wahlén, 2014). For this reason, while this study primarily aims to adapt and test a specific set of indicators recently proposed by Lupoli et al (2014), it also draws on literature from the field of political ecology (concerned with analyzing human-environment relations (Cole, 2012)) to help make sense of the data collected using indicators.

1.2 Research Aim and Objectives

This research will fill the knowledge gaps identified above (namely, the lack of research on community impacts from volunteer tourism, and methods for assessing this) by critically analyzing community responses to, and impacts from, NGO-led volunteer tourism as both a conservation and development activity, through a case study of local impacts and perceptions of Blue Ventures programming in Sarteneja, Belize. As such, the research aim is to examine community responses, impacts, and perceptions of NGO-led volunteer tourism.

To achieve this aim, this thesis will fulfill three objectives:

1) To modify the framework of indicators developed in Lupoli et al (2014) and Lupoli and Morse (2015), for assessing impacts and perceptions of volunteer tourism in Sarteneja, Belize, in consultation with Blue Ventures and community stakeholders;
2) To assess impacts, and perceptions of these impacts, of Blue Ventures’ volunteer
tourism and conservation activities on the community of Sarteneja, using the set of indicators
developed in Objective 1; and

3) To critically assess the use of indicators as a method for evaluating impacts and
perceptions of NGO-led volunteer tourism marine conservation programs, by examining the
processes informing indicator results.

1.3 Literature Review

The remainder of this introductory chapter will review three bodies of literature that form
the context for this research: NGOs in conservation, communities in conservation, and volunteer
tourism. As NGOs and communities are key actors in marine conservation and volunteer tourism
programs, reviewing this literature is important for understanding the role that different actors
play; this understanding is a necessary step in order to gain a nuanced understanding of specific
community impacts from such programs. Reviewed further in Chapter 3, insights from political
ecology also help to provide an understanding of what might be important to look for when
researching community impacts from volunteer tourism. Political ecology is a field of study
concerned with how the power-laden nature of political-economic structures, human interactions,
and environmental discourses shape differential access to and benefits from natural resources
(Campbell, 2007; Campbell et al., 2008; Stonich, 2003). This framework has largely not been
applied to studies of volunteer tourism thus far (Nepal et al., 2016). However, political ecology
studies of other types of tourism have garnered important insights into the processes and
outcomes of tourism; these insights are important when considering volunteer tourism impacts.

Political ecology studies of ecotourism have documented uneven distribution of benefits
from such activities, leading to a range of environmental management issues and often to an
exacerbation of inequality within communities (Stonich 1998, 2003; Belsky, 1999; Cole, 2012;
Nepal et al., 2016; Young, 1999). These studies therefore argue that to understand the
distribution of benefits (and outcomes of such conservation interventions), more complex
portrayals of communities are needed than are often given (Young 1999). This is especially
important for studies of volunteer tourism, which have largely not assessed communities at the
level of detail that political ecology studies suggest is appropriate (Cole, 2012; Nepal et al.,
2016); this is despite the fact that volunteer tourism has been often advertised as different from
other types of tourism, given its potential to generate local community benefits (Wearing et al., 2005).

Given these insights, and the breadth and depth of the field of political ecology, three political ecology themes were focused on for the purposes of this study: power, access to resources, and distribution of benefits. While this study relies primarily on the development and use of indicators as a method that is useful for assessing nuanced local impacts and perceptions of volunteer tourism (Lupoli and Morse, 2015), these themes help to make sense of the political, historical, social, environmental and economic processes that produce the impacts documented using indicators. In order to make sense of these contextual factors then, it is important to start with an analysis of who the actors in marine conservation and volunteer tourism programs are, what roles they play, and potential interactions between them.

1.3.1 NGOs in Conservation and Volunteer Tourism

Besides their role in filling gaps left by decreases in state capacity and initiative (Agrawal and Lemos, 2007; Keese, 2011), NGOs are often seen as particularly well-positioned to address environmental and conservation challenges because they are not accountable to shareholders or motivated by profits (Wearing et al., 2005). They are also seen as being able to mediate and facilitate between different actors in environmental governance, from states, to international financial institutions, to communities (Dolhinow, 2005). NGOs have become “one of the principal advocates and implementers” for eco- and volunteer tourism (Halpenny, 2003, p.108), and often act as ‘bridging organizations’, facilitating between “volunteers and the people and communities in need” (Berkes, 2009; Keese, 2011, p.258). As agents of tourism development, NGOs are characterized as superior to corporate actors because they engage ethically with local people and environments, delivering meaningful benefits for both (Wearing et al., 2005). Given the increase in NGO-led volunteer tourism and the reported advantages of NGOs as conservation and tourism actors, it is important to critically assess their role in this context. It is important to acknowledge that many disciplines have studied the role of NGOs in environmental governance (e.g., the vast amount of literature on the emergence of NGOs as parallel to national governments, the politics of NGO control, and civil society and government tensions (Webb, 2005)). For the purpose of this study, the literature review will highlight those themes that are most relevant from this larger body of literature on NGO governance.
NGOs in conservation range from transnational organizations, to local, small-scale, community-based actors; their role and subsequent impacts therefore vary depending on their specific aims, objectives, and capacity (Duffy, 2006; Lorimer, 2009). In conservation more generally, NGOs play roles in co-management of parks and protected areas (Berkes, 2009; Levine, 2007), in supporting community organizations or marginalized groups (Dressler et al., 2010), in environmental research, education and outreach, and as representatives of special interest groups (Halpenny, 2003). In the context of marine conservation specifically, Halpenny (2003) identifies four roles that NGOs play: first, they finance conservation, including providing funding for marine protected areas (MPAs) and other initiatives; second, they often establish codes of best practice and standards in tourism and ecotourism; third, they educate communities, volunteers and the general public on conservation and global issues; and fourth, they collect biophysical data for research and monitoring purposes.

Through these roles, NGOs navigate between the agendas of international development and conservation biology. NGOs that utilize volunteers in this context add another component, as they contribute to conservation by coordinating tourism, ecotourism and volunteer tourism programs within and around parks and protected areas that serve to finance conservation schemes and, arguably, bring benefits to local communities (Halpenny, 2003; Levine, 2007). As such, a specific geography of NGOs has evolved, whereby smaller scale NGOs often work to provide specific, place-based and relevant information about conservation, and play key roles in facilitating between larger NGOs, organizations and states:

…typically, transnational NGOs are based in, and funded from, higher income countries (‘the North’) whilst much of the biodiversity they wish to conserve is located in the tropics and sub-tropics of mid- and low-income countries (‘the South’). Understanding the practice of conservation in the South therefore requires an understanding of how northern transnational NGOs articulate and negotiate with southern institutions. Increasingly that articulation is done via local partner organisations, often NGOs, based in the South. (Gordon, 2006, p.548)

It is therefore clear that NGOs have become key actors in facilitating conservation efforts. However, there is a “growing debate on the function, focus, and operationalization” of NGOs (Balboa 2014, p.273). While this debate has previously focused on the activities of large transnational NGOs (Balboa, 2014; Chapin, 2004; Duffy, 2006; Gordon, 2006), some scholars are now questioning the legitimacy and relevance of the conservation agendas presented by
smaller NGOs engaged in volunteer tourism (Cousins, 2009; Lorimer, 2009). Although volunteer tourism can present an alternative to more harmful forms of mass tourism (McGehee, 2012; Wearing et al., 2005; Wearing and Wearing, 1999), NGOs that engage in volunteer tourism are not immune to more general critiques of environmental NGOs in conservation (Keese, 2011; Levine, 2007).

For example, while some continue to see NGOs as “neutral providers of community support” (Klimmek, 2013, p.35), Dolhinow (2005) outlines several specific concerns regarding their function. First, NGOs represent and reproduce specific agendas (international biodiversity conservation and international development agendas) in a way that “popular representations of NGOs often overlook” (Dolhinow, 2005, p.575). NGOs have the potential to replicate specific (western) human-nature relationships that serve to reinforce ideas about ‘wild’ areas that need to be ‘protected’ from the influence of humans (Campbell et al., 2008). We should be particularly wary of the implications of expanding this view to different areas of the world, as this risks reproducing colonial relationships (Simpson, 2004). These issues are particularly important for volunteer tourism organizations, where there has so far been little indication of their attentiveness to their role in these contexts (Campbell et al., 2008; Sin, 2009; 2010). Second, NGOs may not effectively represent local people; although they have substantial power and influence in many contexts, they are not democratically elected (Dolhinow, 2005). Third, many conservation NGOs are embedded in neoliberal paradigms through their promotion of “self-help” and “self-sufficiency” programs. Therefore, despite filling important conservation gaps left by states, NGOs can unintentionally work to “obscure and limit the discussion of alternative discourses of development and social change” (Dolhinow, 2005, p. 559). However, Dolhinow (2005) indicates that NGOs can avoid perpetrating neoliberal ethics onto unwary locals if they are aware of their position within the larger context of governance.

A growing body of literature critiques volunteer tourism organizations as agents of neocolonialism (Caton and Santos, 2009). Neocolonialism refers to the economic power and influence that industrialized nation states continue to hold over former colonies; tourism can be considered a form of neocolonialism in that western corporations often have the “power and resources to invest and control developing nation’s tourism industries” (Wearing and Wearing, 1999, p.47). Through this power and influence, unequal relations and a dependency of developing nations on western countries for income and support are perpetuated (Vrasti, 2013).
Some argue that volunteer tourism is no different; large international NGOs often hold power and influence over conservation funds, and have an ability to direct the global conservation agenda (Adams and Hutton, 2007). Volunteer tourism and conservation are now common in many parts of the world, but these areas are typically ‘biodiversity hotspots’ located in developing countries, where governments may not have the capacity to direct tourism and conservation of their own accord (Brightsmith et al., 2008; Levine, 2007).

Additionally, NGOs can be seen as agents of neocolonialism when they perpetuate specific ideas and concepts about people, places and cultures:

Seven of the ten directors commented on rural versus urban locations of programme work. ProWorld Service Corps chose not to work in Ghana’s capital city of Accra because they wanted a small, safer, more intimate, out-of-city feel. ‘Volunteers going to Africa are not looking for a skyscraper and big city experience. For many people, the rural village experience represents the “real Africa”’ (Keese, 2011, p.268).

This ‘othering’ of people and places is reflected by both empirical research on volunteers themselves, and the ways that organizations often use “simplified imagery of destinations and local cultures in order to appeal to potential volunteers’ imaginations” (Guttentag, 2009, p.546).

Some argue that volunteer tourism NGOs, because they are reliant on paying volunteers to fund their conservation programs, make decisions about their programs and agendas much like any other market actor (Butcher, 2006; Campbell et al., 2008; Lorimer, 2009). This means that volunteer tourism NGOs must tailor their marketing approaches at least to some extent to the desires of volunteers (Lorimer, 2009), in order to attract volunteers and fund their initiatives. This results in a specific geography of conservation effort; global conservation agendas are largely set in the north, and implemented in ‘hotspots’ generally located in developing countries, and the same applies to the distribution of volunteer tourism programs (Keese, 2011; Balboa, 2014). Therefore, conservation agendas that rely on NGOs and volunteer tourism for implementation are likely to miss locations that are not seen as safe, politically stable, convenient, accessible, attractive, or exotic to those involved (Keese, 2011; Lorimer, 2009). For example, there are many volunteer programs in Costa Rica and very few in the Middle East (Keese, 2011). Others take this further, to argue that many projects and volunteers are ‘shallow’ and focused on specific experiences of nature; this can work to create conservation agendas that
reflect the desires of western volunteers rather than local actors (Campbell et al., 2008; Grimm, 2013)

This reliance of NGOs on volunteers’ perceptions of safety and conservation value may be problematic (Keese, 2011). For example, Levine (2007) identified how negative perceptions of place, safety and political climate, resulting from international political and media attention, led to a decline in conservation spending and attention to ecotourism programs in MPAs in Zanzibar. In this way, ecotourism is not immune to criticisms of mass tourism as an industry that is “fickle and fluctuates dramatically”; volunteer tourism is similar to ecotourism, which has been shown to be an unreliable source of income that can change drastically based on conditions outside the control of those involved (Levine, 2007, p.573).

NGOs have the potential to deliver benefits (for both people and conservation) in the Global South through volunteer tourism programs. On the other hand, NGOs (and NGO-led volunteer tourism) may also be problematic. We need to understand the interactions between NGOs that function as conservation, development and tourism actors, and other actors (especially host communities). Given the increase in NGO-led volunteer tourism, the reported advantages of NGOs as conservation and tourism actors, and the power they can exert in the Global South, it is important to critically assess their role in this context.

1.3.2 Communities and Conservation

If the conservation agendas presented by NGOs should not be assumed to be neutral, but should be critically analyzed, the same applies to the concept of community-based conservation (CBC), or community-based natural resource management (CBNRM). These concepts include elements of participation, empowerment and decentralization (Adams and Hulme, 2001) and “seek to encourage better resource management outcomes with… the incorporation of local institutions, customary practices, and knowledge systems in management, regulatory, and enforcement processes” (Gruber, 2010, p.53). Today, community-based approaches have become entrenched in conservation and development agendas (Adams and Hulme, 2001; Dressler et al., 2010; Kellert et al., 2000). While work critical of these concepts has emerged, noting that CBC and CBNRM are not a panacea for environmental, economic and social development issues, these fields of work can offer insights into the role of communities in conservation and tourism agendas (Adams and Hulme, 2001). This is particularly important for the purposes of this
research, given that Blue Ventures explicitly characterizes itself as a conservation organization operating “for communities, by communities” (Blue Ventures, 2016c).

First, while organizations often tout their high level of community involvement, many scholars identify a need to critically examine frequent conceptualizations of community as “a small spatial unit, as a homogenous social structure, and as shared norms” (Agrawal and Gibson, 1999, p.630; Adams and Hulme, 2001; Brosius et al., 1998; Spiteri and Nepal, 2006). Agrawal and Gibson (1999) point out that these conceptualizations miss the multiple interests, local level processes, and institutional arrangements present within ‘community’, and that these pieces are crucial to our understanding of how effective conservation occurs. Second, many analyses of CBNRM fail to critically analyse the wider institutional and governmental context within which CBNRM fits. Bradshaw (2003) terms this a problem of ‘credibility and capacity’ within a neoliberal framework, where the responsibility of managing resources has been delegated to communities, with little external support. Agrawal and Gibson (1999) and Dressler et al. (2010) point to the power asymmetries between communities and external agencies; they argue that disregarding this context ignores the crucial role external actors play in shaping local actions.

In the context of marine conservation and volunteer tourism, MPAs are a mechanism frequently used to address a range of ocean impacts, from pollution to overfishing (Ban et al., 2009; Parsons et al., 2014); they have generated global support despite their questionable record of achieving conservation outcomes (Cinner, 2007). In recent years, the limited success of MPAs has largely been attributed to a lack of attention paid to the social context surrounding MPAs and conservation (Cinner, 2007). It is now widely accepted that “support from, and compliance by, people affected by MPAs is crucial to their successful implementation” (Ban et al., 2009, p.900). However, despite this recognition, integration of local people and communities into the management of MPAs has rarely occurred (Ferse et al., 2010). Where local people have not been included in the process, significant social and economic impacts have been recorded, and in some cases, violence has resulted (Plummer and DeWitt, 2004; Rodriguez-Martinez, 2008; Voyer et al., 2014). If volunteer tourism programs are to benefit both communities and conservation, as they aim to do (Halpenny, 2003), then these complexities (especially in and around MPAs) need to be accounted for.

NGOs and communities are both regarded as essential actors in conservation and volunteer tourism. However, research from a variety of fields demonstrates that a nuanced and
specific understanding of the roles each of these actors play is key in generating effective solutions; it is important to challenge traditional ‘truths’ about these different actors and the ways they operate (Bryant, 2002).

1.3.3 Volunteer Tourism

Since the 1980s, the academic scholarship on volunteer tourism has expanded rapidly, and in doing so, has undergone several shifts (Wearing et al., 2005; Wearing and McGehee, 2013). Jafari (2001) identifies four different stages in volunteer tourism research: advocacy (research promoting the positive impacts of volunteer tourism), cautionary (outlining possible negative impacts), adaptancy (exploring ways to maximize positive impacts and minimize negative ones), and scientific (examining volunteer tourism in a systematic and logical way). These authors suggest that while current literature falls under a range of these categories (i.e., studies advocating volunteer tourism, warning of potential pitfalls, and seeking best practices are still emerging), the focus is shifting towards the scientific platform, where theoretically-informed analyses offer a “more comprehensive picture of the breadth and depth of the phenomenon of volunteer tourism” (Wearing and McGehee, 2013, p. 122).

Of the three main actors involved in volunteer tourism, most research so far has focused on the role of the individual volunteer (rather than the organization providing the experience, or the host community) (McGehee, 2012; McGehee & Andereck, 2008; Wearing and McGehee, 2013). Common research topics have included individual motivations for, and impacts from, participation in volunteer projects (Brown, 2005; Callanan & Thomas, 2005); the quality of data produced by volunteers for conservation research (Brightsmith et al., 2008; Wearing & McGehee, 2013); and volunteer tourism and global citizenship (Lorimer 2010). Wearing and McGehee (2013) offer several explanations as to why individual volunteer tourists have received the most attention, including: socio-cultural similarity between researchers and volunteers; socio-cultural differences (such as language) or other participation barriers that prevent research with local people; availability of time by volunteers as opposed to local community members; more attention and funding placed on tourism demand, rather than supply; and difficulty in defining who constitutes a ‘community’.

While research on the host community aspect of volunteer tourism is still rather limited, there is a growing body of literature examining the role of local people in these projects. Early
research on host communities focused on relations between hosts and guests, identifying beneficial relationships between hosts communities and volunteers (Singh, 2014; Wearing et al. 2005). In general, the literature identifies three main positive impacts that volunteer tourism can have on local communities. First, volunteer tourism programs can bring economic benefits to communities in the form of new employment and entrepreneurial opportunities (Hampton and Jeyacheya, 2013; Wongthong and Harvey, 2014). Gentry (2007) explores the possibility that alternative tourism in remote areas can provide unique economic opportunities for women in particular. Second, volunteer tourism can positively impact social capital; this can include an increased sense of pride in local culture and awareness of global conservation and environmental issues (Zahra and McGehee, 2013). Third, volunteer tourism can create ‘geographies of care and responsibility’, where different areas of the world “are brought together into a shared space [and] tourists can … personally see and engage the “other” [in ways that are] supposedly socially responsible” (Sin, 2010, p.984).

A growing amount of research examines potential negative impacts of volunteer tourism on communities (Guttentag, 2009). While the disempowering impacts of traditional tourism on local people are well-documented, the work on impacts within the context of volunteer tourism is still rather limited (McGehee and Andereck, 2008, 2009; Wearing and McGehee, 2013). The most problematic of these negative impacts is arguably the effects of unequal power relations and unequal distribution of benefits between volunteers and host communities (Simpson, 2004). This can manifest itself in neglecting local wishes, where agendas are set and tasks completed by volunteers and organizations with the financial capital to do so, regardless of relevance to the community (Sin, 2009; 2010; Guttentag, 2009). It can also be shown in a dependency on the sector, where individuals become reliant on, and trapped in, the tourism sector (Gentry 2007; Guttentag, 2009). Wearing and McGehee (2013) argue that the “very foundation of volunteer tourism exists in a commodified environment and serves as a stronghold for the privileged” (p.125) where the needs of Western volunteers are consistently placed above those of the community. Guttentag (2009) suggests volunteer tourism can cause ‘othering’ and “rationalisations of poverty caused by intercultural experience” (p.537). This has also been demonstrated by Sin (2009), Simpson (2004) and Caton and Santos (2009) who show that locals receiving ‘help’ from volunteer tourists and organizations are often conceptualized in ways that reinforce dominant (and potentially harmful) cultural stereotypes. In this way, volunteer tourism
is connected with international development schemes of volunteer-sending countries; this has the potential to undermine long-standing development programs already in place (Simpson, 2004).

While there is a growing number of critical, more nuanced studies recognizing the potential negative impacts of volunteer tourism (Devereux, 2008; Guttentag, 2009; McGehee and Andereck, 2009; Palacios, 2010; Raymond and Hall, 2008; Simpson, 2004; Sin, 2009, 2010; Tomazos and Butler, 2010; Vrasti, 2013) and a few studies attempting to account for these impacts (Lupoli and Morse, 2015; Zahra and McGehee, 2014) there is a critical lack of information on the interactions between conservation NGOs and communities in the context of volunteer tourism. Further, while volunteer tourism can, “in appropriate settings, with adequate resources and planning,” be successful (Halpenny, 2003, p.108), there is a need for more critical and empirical research investigating the idea of volunteer tourism as a panacea for conservation issues; most research so far has focused on aggregate benefits to communities from volunteer tourism projects (Lorimer, 2009).

The perceived benefits of NGO-led volunteer tourism to marine conservation are often not critically assessed, and are rarely substantiated by research or with voices from host communities (Campbell et al., 2008; Lupoli and Morse, 2015). Specifically, there is a lack of empirical research on how volunteer tourism programs impact communities, and methods for accounting and assessing these impacts (Lupoli and Morse, 2015; McGehee 2012; Sin, 2010). This lack of information on community responses and impacts represents a crucial oversight, as research has shown that engaging local people and communities in marine conservation is an important element of success (Dressler et al., 2010; Ferse et al., 2010). While the importance of engaging communities has been widely acknowledged (although rarely achieved) in conservation and development agendas more broadly, the volunteer tourism literature has largely not addressed this topic (Simpson, 2004; Wearing & McGehee, 2013).

As host communities play an indispensable role in volunteer tourism programs, and have been shown to be key players in effective marine conservation, an understanding of the role of communities in these programs must be obtained before the effectiveness of NGO-led volunteer tourism can be evaluated. Indicators, or “measures of the existence or severity of current issues, signals of upcoming situations or problems, measures of risk and potential need for action, and means to identify and measure the results of our actions” (World Tourism Organizations, 2004, p.8), present one option widely used in many fields including conservation, tourism and
sustainable development. While indicators have been proposed as one method for documenting the interactions between host communities and volunteer tourism programs (Lupoli et al., 2014), they have yet to be widely used for this purpose. Therefore, this research will critically investigate the utility of indicators in volunteer tourism through a case study of a marine conservation and volunteer tourism program in Sarteneja, Belize. In so doing, this research will contribute to the scholarship and practice of volunteer tourism, and communities and NGOs in conservation, by developing and testing a systematic indicator framework to examine interactions between volunteer tourists, NGOs, and communities.

1.4 Thesis Outline

This thesis is a manuscript style thesis presented in four chapters. Following the introduction laid out in Chapter one, Chapter two describes the methodological research approach, specific case study and study site, and the research methods used to meet each objective. Chapter three presents a manuscript that details the main research findings; it discusses community perceptions of impacts from volunteer tourism through environmental, economic, personal well-being and social indicators, and analyzes the appropriateness of these indicators for assessing volunteer tourism impacts, drawing on insights from political ecology. Chapter four summarizes the main findings of the project, and discusses the practical and scholarly contributions of the research.
CHAPTER 2: METHODOLOGICAL APPROACH
AND RESEARCH CONTEXT

2.1 Methodological Approach

This thesis utilized a case study approach to assess the interactions, impacts, and flow of benefits between volunteer tourism programs and local communities in marine conservation. Case studies are a mixed methods approach that allow researchers to carefully examine a phenomenon in its natural context (Yin, 2014). This might include “individuals or organizations, simple through complex interventions, relationships, communities, or programs” (Baxter and Jack, 2008, p. 544). This approach is especially relevant for research that asks ‘how’ and ‘why’ questions in order to explain complex social phenomena (Baxter and Jack, 2008; Yin, 2014), as it allows for the “deconstruction and the subsequent reconstruction”, and therefore understanding of, different circumstances (Baxter and Jack, 2008, p.544). As case study researchers tend to draw from multiple lines of evidence and differing perspectives (‘data triangulation’), this approach can be considered a highly credible method of inquiry (Baxter and Jack, 2008; Bryman, 2006; Clifford et al., 2010; Patton, 1990; Yin, 2003).

A case study approach has been used fairly extensively in studies of volunteer tourism to date (e.g. Brightsmith, 2008; Gentry, 2007; Gray and Campbell, 2007; Grimm and Needham, 2012). It is a particularly applicable framework for tourism and conservation research because of its focus on examining the vastly different meanings, interpretations and explanations that humans attach to phenomena, particularly where these phenomena are “rooted in specific spatial and temporal contexts” (Gray and Campbell, 2007, p.268; Lofland & Lofland, 1995; Ryan et al., 2000; Seale 1999). While case study findings cannot be generalized to all populations, they can provide important insights into the underlying structure, and relationships between parts, of systems, and can therefore “present unique opportunities for understanding the mechanisms that underlie empirical observation” (Clifford et al., 2010, p. 232). Further, case study research is often helpful for assessing similar situations, as “human behavior is rarely unique to a single group” (Grimm and Needham, 2012, p.291; Berg, 2001). As a phenomenon that is highly context-dependent, but often contains similar actors and processes in different situations, volunteer tourism is ideally suited to this method (Berg, 2001).

For the purposes of this research, UK-based organization Blue Ventures and their programming in Sarteneja, Belize, was chosen as a case study. As an organization that relies on
funds from volunteer tourists in order to run community-based conservation activities, and as an organization claiming to be explicitly focused on providing benefits to local communities in a marine context (Blue Ventures, 2015), Blue Ventures represents an excellent case study for this research. This chapter will describe the case study in detail (including detailing Blue Ventures’ operations, and the context of marine conservation and tourism in Belize) and explain the data collection methods and analysis employed at each stage of the research.

2.2 Study Site

2.2.1 Marine Conservation and Eco/Volunteer Tourism in Belize

Marine resources are especially vital for the country of Belize, where many coastal communities rely heavily on either fishing or marine-related tourism for their livelihoods (SACD, 2012). Following independence from the United Kingdom in 1981 (Karlsson and Bryceson, 2016), Belize formally adopted ecotourism as a form of national development and one form of reef conservation in the face of ecological challenges (Belsky, 2004; Conservation International, 2008; Moreno, 2005). The Belize Barrier Reef is a 260 km long section of the Meso-American Barrier Reef System, the second largest barrier reef in the world and a World Heritage Site (Jones et al., 2011). It is ecologically representative of a range of tropical coral reef systems, mangroves, and seagrass, and is incredibly important in a vast array of socio-ecological functions, from coastline protection to nursery habitat for fisheries (Pomeroy and Goetze, 2003). Both marine resource extraction in the form of lobster, conch, finfish, and shrimp farming, and marine tourism, depend on this reef system; together, these activities make an important contribution to Belizean GDP (Cho, 2005; Pomeroy and Goetze, 2003).

However, coral reefs are considered to be one of the most endangered systems in the world (Baker et al., 2008; Burke et al., 2011; Jones et al., 2011; Hughes et al., 2003) and they face pressures from coastal development, overexploitation, pollution, climate change related events, and ocean acidification (Burke et al., 2011; Jones et al., 2011). Caribbean reefs are no exception, where a coral cover decline of almost 80% in the last twenty years has been documented (Gardner et al., 2003; Hughes 1994; Jones et al., 2011). While reef ecotourism offers funding and baseline data for many coastal and MPAs in Belize, it has also added another pressure on coral reef and marine ecosystems (Diedrich, 2007).
In sum, Belize is an excellent case study for this research because: a) it is an important tourism destination; b) it has experienced a growth in NGO-led volunteer tourism projects (in particular, marine ecotourism programs); c) it is internationally known as a ‘biodiversity hotspot (Diedrich and Garcia-Buades, 2009; Lorimer, 2009; Timothy and White, 1999); and d) tensions between community development and conservation processes have been identified in previous research, especially in rural areas where communities rely heavily on marine resources (Belsky, 1999).

2.2.2 Case Study Description: Sarteneja and Blue Ventures, Belize

Sarteneja Community Profile:

Sarteneja, the largest fishing village in Belize and an ancient Mayan settlement, is a community of approximately 1824 people in the northern-most Corozal District (Statistical Institute of Belize, 2013 - see Figures 1 and 2). The fishers of Sarteneja are known to fish the entirety of the Belizean coastline (Figures 2 and 3), from the shared border with Mexico to the border with Guatemala and Honduras (Conservation International 2008); thus, Sarteneja is characterized by its continued dependency on fishing (over 80% of the community is dependent on fisheries), and its position as a key stakeholder community in Belize’s marine conservation (‘marine managed areas’) network (SACD, 2009). According to local research by one Sartenejan-based conservation organization, Sarteneja is currently experiencing a transition from fishing to other income sources (Conservation International, 2008; SACD 2009; SACD 2012):

It is recognized at local, national and international level that the artisanal fishing industry in Belize is in serious decline, and consultations with the fishermen and other community members of Sarteneja under previous community initiatives have demonstrated a clear recognition of the declining state of the resource, and a strong desire to develop alternative livelihoods through tourism in the local area (SACD, 2009, p.20).

This shift is seen as vitally important by local and international conservation organizations, the Belizean government, and many locals (SACD, 2012), given that the lobster and conch fishery are now recognized as fully exploited (Carcamo, 2005) and in ‘serious decline’ (McConney et al., 2003), respectively.

While still fairly isolated when compared to many other coastal places in Belize, Sarteneja has seen an increase in tourism in recent years (SACD, 2009) stemming in large part
from organizations that bring in volunteer tourists. In addition to Blue Ventures, there are several other conservation organizations headquartered in Sarteneja that utilize volunteers.

Figure 1. Map of Belize showing the study site of Sarteneja, and Blue Ventures’ area of operation (Bacalar Chico National Park and Marine Reserve).
Section 2.3.4 will outline these organizations, as well as other important conservation and tourism actors operating in Sarteneja.

**Blue Ventures:**

Blue Ventures has been operating in Belize since 2010, with their headquarters in Sarteneja (Blue Ventures, 2015). Founded in 2003, the organization is comprised of a UK-based charity, Blue Ventures Conservation, and Blue Ventures Expeditions, a volunteer tourism enterprise (Blue Ventures, 2015). Blue Ventures Expeditions generates funds for Blue Ventures Conservation and related community-based conservation initiatives, by offering volunteer tourism expeditions in and around MPAs (Blue Ventures, 2015). Their mission is to “work with coastal communities to develop transformative approaches for catalysing and sustaining locally led marine conservation”, and they are “committed to protecting marine biodiversity in ways that benefit coastal people” (Blue Ventures, 2015).

Volunteer tourists that choose Blue Ventures Expeditions spend the majority of their time at Bacalar Chico National Park and Marine Reserve (BCNPMR – see Figure 1), part of the second largest barrier reef in the world (Blue Ventures, 2015). Trips from 3 – 12 weeks are offered; 6 week trips are most typical, where volunteers spend the first and last weeks in

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Figure 2. The town of Sarteneja, located on Corozal Bay in the northernmost Corozal District of Belize. (Source: Author’s photo, 2015)
Sarteneja, and the four weeks in between at the BCNPMR participating in underwater reef research (i.e., scuba diving to survey and monitor the reef and various species). Intensive 7 or 16 day dive trips are also offered, which involve culling of invasive lionfish. While volunteers are in Sarteneja, they work with Blue Ventures staff on some community conservation programs; during this time, volunteers stay with host families through the Sarteneja Homestay Group, where they receive room and board with their ‘family’.

Through these expeditions, the organization generates funding to support a range of community-based conservation initiatives within Sarteneja, regionally, and nationally. Their work in Sarteneja involves environmental education in schools (MPA and English lessons in two local schools, and field trips to BCNPMR), and community programming (birdwatching and biodiversity classes in nearby Shipstern Nature Reserve, and environmental parties, such as Christmas parties or ‘Mangrove Fun Day’). A large part of their community conservation work both in Sarteneja and elsewhere in Belize focuses on the control of invasive lionfish. They work with local fishers, restaurants and business, and processing facilities to educate and create new markets for consumption of lionfish as a way to control the population and decrease pressure on other declining commercial species (Blue Ventures, 2015; Chapman, 2013; Chapman et al., 2013). In Sarteneja, this involves holding lionfish jewelry making workshops and lionfish safe
handling training; most recently, they have also set up a co-operative for Sartenejan women to sell jewelry products made from lionfish fins (personal correspondence). Finally, Blue Ventures also collaborates with other local conservation organizations on ecological monitoring, and community events that include a conservation component (for instance, SACD ‘Open Days’ in schools, or Easter Regatta). These other organizations, and their connections to Blue Ventures, are discussed in the following section.

2.2.3 Relevant Conservation Actors in Sarteneja

The following organizations are conservation and tourism-related organizations located in, or with operations in, Sarteneja, that are directly relevant to the work of Blue Ventures. Many of these are important collaborators with Blue Ventures in research and monitoring initiatives in the wider Corozal Bay Wildlife Sanctuary.

Sarteneja Alliance for Conservation and Development (SACD):

Established in 2008, SACD’s mission is to “bring people together for conservation” (IUCN, 2014); it acts as an ‘umbrella organization’ for the two other community-based conservation and alternative livelihood focused organizations established at the same time, the Sarteneja Tour Guide Association, and the Sarteneja Fishermen Association. Their Natural Resource Management Program focuses on ‘establishing surveillance and enforcement activities within Corozal Bay Wildlife Sanctuary, as the first step towards co-management with Forest Department’ (SACD, 2009, p.26). They also do education and outreach, and community development activities, and are collaborators with a multitude of other organizations in the area, including Blue Ventures, Wildtracks, the Village Council, Sports Committee, and more. Blue Ventures collaborates with SACD to monitor water quality, bird and manatee populations in the Corozal Bay Wildlife Sanctuary, and on community conservation events (personal correspondence).

Sarteneja Tour Guide Association (STGA):

Established in 2007, the STGA’s mission is to promote “Sarteneja as a tourism destination, provide alternative livelihoods for local fishermen, represent and support Sarteneja’s tour guides and follow legislation issued by Belize Tourism Board and BTA” (SACD, 2009, p.23). Blue
Ventures collaborates with the STGA; they often utilize tour guides trained with the STGA to do activities with the volunteers.

**Sarteneja Fishermen Association (SFA):**
Established in 2007, the SFA is an important component of the SACD, and is focused on creating alternative livelihoods for fishers attempting to leave the industry (SACD, 2009).

**Wildtracks:**
Established in 1990, Wildtracks is located just outside the town of Sarteneja; their work focuses on conservation, research, education and outreach and sustainable development (Wildtracks, 2015). They have both a manatee and primate rehabilitation centre, and it is in these centres that volunteer tourists come to work. Like Blue Ventures, the organization is heavily reliant on funding and labour from these volunteers (personal correspondence). They collaborate with Blue Ventures and other local organizations in a number of ways, especially in monitoring in the Corozal Bay Wildlife Sanctuary.

**Belize Audubon Society (BAS):**
Formed in 1969, BAS is “dedicated to the sustainable management of our natural resources through leadership and strategic partnerships with stakeholders for the benefit of people and the environment” (Belize Audubon Society, 2015). The BAS conducts community outreach programs in Sarteneja, and participates in annual activities such as Sarteneja’s Community Day, or Reef Week, alongside Blue Ventures. They have also provided small business micro-grants to fishers and their families (such as in 2014) (BAS, 2014).

**Mar Alliance:**
MA works to improve “understanding and conservation of threatened marine species, notably reef-associated sharks and rays and their habitats, through participatory science and monitoring, capacity-building, outreach and support for policy reform” (Mar Alliance, 2016). Based in San Pedro (on Ambergris Caye, 2 hours by boat from Sarteneja), they collaborate with

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1 For the duration of this fieldwork from May to August 2015, the STGA was not issuing licenses, and therefore did not have much collaboration with Blue Ventures during this time (personal correspondence).
local organizations in Sarteneja, including Blue Ventures, for example in the 2015 Reef Week Party, hosted by Blue Ventures.

The Sarteneja Homestay Group (SHG):

The SHG was started with the help of SACD, and is now comprised of 15 local families. It operates now as an independent organization that Blue Ventures uses for volunteer accommodation. Blue Ventures has at some points been involved with certain management aspects of the group, although at this time it largely operates separately (e.g., controls decisions and membership into the group, etc.); however, some decisions are still made in collaboration (for instance, if there is a volunteer with certain preferences, Blue Ventures might help the group decide which family that volunteer should stay with). Since there are currently not enough volunteers to fill up all of the available spaces with each family, a rotation occurs, whereby the volunteers are shared equally among the families; families that do not receive volunteers for a rotation will usually cook group lunch meals for volunteers.

2.3 Research Methods

Consistent with methods commonly used in case study research (Baxter and Jack, 2008), data were collected through focus groups, household surveys, semi-structured interviews, participant observation and ethnographic field note writing techniques. These methods allowed for a focus on “…questions concerning interpretations of meanings, concepts, symbols, metaphors, and ways humans make sense of their surroundings” (Grimm and Needham, 2012, p.291; Berg 2001). Seventy-six random household surveys, 3 focus groups, and 10 interviews were conducted in 3.5 months between May and August 2015 in Sarteneja with the aim of gathering opinions on volunteer tourism and conservation impacts from a wide variety of community members, including those who are not involved with, or have limited participation in, these activities. All surveys and eight of ten interviews were conducted in Spanish with a research assistant from the Natural Resources Management Program at the Centro Escolar Mexico Junior College. Focus groups and interviews were recorded and transcribed, (with the research assistant’s help for Spanish recordings). The researcher and research assistant administered the household survey in person, recording answers on paper.
Ethnographic field notes and participant observation were also used throughout the duration of the field season, allowing the researcher to take part in the daily activities of research participants, in order to gain an understanding of “a situation in its natural or usual social context” (Belsky, 2004, p.277), and to allow for the creation of more informal and relaxed spaces of exchange between researchers and participants (Belsky, 2004; Clifford et al., 2010). This was achieved in multiple ways. First, the researcher stayed for the duration of the field season with a family in the Sarteneja Homestay Group. The extended fieldwork season, and staying with a local family, allowed for a higher level of trust and credibility to be established between the researcher and community members (Decrop, 2004; Grimm and Needham, 2012). The researcher also participated in some of the volunteer activities in Sarteneja; this included going through the volunteer orientation, participating in MPA classes in local schools and group volunteer meals.

Sections 2.4.1 to 2.4.5 will detail the specific methods used to achieve each objective, in chronological order. Following this, section 2.4.6 will discuss the participatory/ethical approach to this research; section 2.5 will describe the data analysis conducted post-fieldwork.

2.3.1 Document Review and Consultation

In order to practically assess the impacts and perceptions of Blue Ventures’ work on the community of Sarteneja, indicators developed by Lupoli (Lupoli et al. 2014; Lupoli and Morse 2015) were adapted to suit this case study (Objective 1). Lupoli et al (2014) propose a set of indicators to assess volunteer tourism impacts, based on questionnaire data from 183 volunteer tourism organizations and two samples, one from USA, Canada, UK, Australia and New Zealand, and one based on Latin America. These indicators are based on AtKisson’s (2011) community sustainability ‘compass concept’, with the assertion that indicators in tourism must allow for a systems thinking perspective, where the “interconnectivities present in the tourist system” are accounted for (Lupoli et al., 2014, p.898). As such, the set of indicators chosen by Lupoli et al (2014) measure environmental, economic, personal well-being and social impacts; each indicator is then ranked based on degree of usefulness (as assessed by volunteer tourism sending organizations in the two samples). Lupoli and Morse (2015) compare those indicators ranked as most useful by sending organizations, with high priority, community-derived indicators workshopped in Latin America. The creation of a specific set of indicators from this initial set, for the purposes of this case study, was an iterative process done in three stages, and
included collaboration with Blue Ventures staff and later, with community stakeholders through focus groups. Table 1 shows the indicator selection process for the survey instrument, including which indicators were considered, why, and specific changes made as a result of focus groups and Blue Ventures feedback.

Before the researcher arrived in Sarteneja, an initial list of indicators was created from the Lupoli et al (2014), and Lupoli and Morse (2015), frameworks. While indicators have been widely used in conservation and tourism studies (Budruk and Phillips, 2011; Hughes, 2002; World Tourism Organization, 2004), including studies of community-based ecotourism (Nepal and Saarinen, 2016), indicators from recent work by Lupoli et al (2014), and Lupoli and Morse (2015) were chosen for this study. Indicators to assess community impacts in Lupoli et al (2014) were designed by and for volunteer tourism organizations; as this study aims to assess impacts from one organization, the set of indicators presented suits this study’s research aim and objectives well.

Indicators from Lupoli et al (2014) were included with high usefulness rankings in both sample 1 (UK organizations) and sample 2 (Latin American organizations), with a particular focus on sample 2. The most important indicators ranked by communities and organizations, that were also likely to be relevant to the case study, were chosen from Lupoli and Morse (2015). Duplicates were then merged across the different papers and categories. This list was then combined with an assessment of websites and documents related to Sarteneja, Belize, and Blue Ventures, to determine those indicators most applicable to marine conservation and volunteer tourism in Belize. For instance, indicators based on economic impacts and environmental perceptions and attitudes related to community involvement and school programs were prioritized. As the framework emphasizes a systems perspective, indicators were chosen in order to ensure that impacts could be measured across all proposed categories: environmental, economic, personal well-being and social.

The second stage of the indicator development process occurred in collaboration with Blue Ventures, both before the researcher arrived in Sarteneja, and at the very beginning of the field season; the list of indicators generated in the above steps was sent to Blue Ventures Belize staff for feedback. This allowed Blue Ventures to highlight those indicators most useful to them, and give specific feedback on how indicators might be measured.
2.3.2 Focus Groups

The third stage of indicator development involved further adapting the list in accordance with information from community focus groups and a local research assistant; this was done early in the field season, as soon as possible upon the researcher arriving in Sarteneja, to ensure that indicators were as relevant to different stakeholders and community members as possible. Focus groups are small groups of people, where researchers informally guide conversation around a specific topic, in order to get at the experiences, perceptions, and attitudes that individuals hold about the topic (Clifford et al., 2010; Patton, 1990). Three community focus groups were held in Sarteneja in May 2015. The first involved seven local high school students, or recently graduated high school students (within one year), aged 18-22, both male and female. The second was comprised of 14 local fishers and two Village Councillors, all of whom were men of a variety of ages. The final focus group was comprised of six middle-aged women from the Sarteneja Homestay Group. The latter two focus groups were separated between men and women, based recommendations from Blue Ventures staff, to ensure that women had an equal chance to voice their opinions. These groups were selected because they represented a variety of important community stakeholders, and were most accessible to the researcher.

During the focus groups, people’s opinions about impacts of volunteer tourism and conservation more generally were discussed, before moving into a conversation about how and whether the indicators presented were relevant for them (and if not, how they could be better adapted to suit their needs and interests). Participants for the focus groups were chosen through purposeful sampling (useful for finding “information-rich informants” (Patton, 1990, p.237) and snowball sampling (the use of key informants’ knowledge to locate other particularly well informed individuals (Campbell et al., 2006; Patton, 1990, 237)). Specifically, purposeful sampling was used in order to identify particular “characteristics of particular subgroups of interest” (Clifford et al., 2010, p. 244). Subgroups of interest were identified by previous research (Meeker, 2014) and by the Blue Ventures community coordinator and director, and included fishers and women in the Homestay Group. These subgroups were chosen because they represent key community stakeholders affected by and/or involved in marine conservation and tourism.
Table 1. Indicator selection process.

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### Social Indicators included:

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1. Indicators are from Lupoli et al (2014) and Lupoli and Morse (2015); original wording is kept in the first column.

2. Rationale refers to stage 1 of the research process; see Figure 2.

3. Environmental indicators excluded were: protecting biodiversity; protecting natural areas/forests; sustainable use of natural resources; restoring natural areas/forests; funding for conservation initiatives/protected areas; site attractiveness/potential for other forms of tourism; environmental sanitation/waste management; conducting environmental assessments; staffing for conservation areas/protected areas; assisting capture/injured wildlife. These were excluded because they did not fit the theme of the research.

4. Economic indicators excluded were: tourism expenditures that stay within the community; economic opportunities for host families; locally made marketable products; creation of local business; local business revenues; availability of highly skilled jobs. These were excluded because of research already being done on the creation of local business and locally made marketable products (mostly concerning lionfish) by Blue Ventures. While availability of highly skilled jobs was found to be important, this was merged with employment opportunities and training programs for community members. Tourism expenditure was excluded during Blue Ventures consultation because there are very few businesses in the community, and of these, very few are owned by foreigners.

5. Personal well-being indicators excluded were: local people's ability to share their cultural knowledge; capacity-building/training programs; local people's ability to share their ecological knowledge; access to health care services; physical health of community members; access to the internet/information. Capacity-building/training programs was merged with economic indicators; ability to share ecological knowledge was merged with social indicators. Access to health care and physical health were merged with standard of living of community members.

6. As this indicator was specifically in preparation for a further community needs assessment, and not directly relevant to the research aim of this project, it was not included in the manuscript of this thesis (all data directly relevant to Blue Ventures work, including this indicator, was presented in a separate report to the organization).

7. Social indicators excluded were: engagement of the community in community improvement projects; engagement of community in community-level decision-making; community visioning/goal-setting; community infrastructure; social cohesion; community tourism planning; dependency of the community on foreign assistance; rate/type of criminal activity; rate of migration to/from the community. These were merged with personal well-being indicators during Blue Ventures consultation and focus group feedback, and/or did not fit the theme the research.
2.3.3 Random Household Survey

Using the set of relevant and appropriate indicators identified through the methods for Objective 1, survey questions were developed in order to gather data on relevant impacts from the broader community (Objective 2). Surveys are useful for gaining information about characteristics, behaviours, and attitudes and opinions of a population, based on a representative sample (Clifford et al., 2010; Rea and Parker, 1997). In this case, the survey was instrumental in gaining information about perceptions and impacts from all community members, including those who are directly involved in Blue Ventures work as well as those who are not. In this way, baseline information was gathered for Blue Ventures on their impacts on the wider community, not just those individuals who are directly involved in their programs.

The survey process began as soon as the list of indicators and the sampling methodology for households were finalized (June, 2015). The survey gathered socio-economic and demographic data (age, gender, occupation, primary source of income, household size, number and age of children in house, school children attend, income level), as well as community members’ perceptions of the impacts and benefits resulting from conservation and volunteer tourism projects, with a specific focus on Blue Ventures programs. Questions about impacts and benefits related to each of the four indicator categories: environmental, economic, social and personal well-being. Appendix D provides the full list of survey questions. The survey sample size aim was calculated to be between 96 and 384 households, using a confidence level of 95%, a margin of error of 5% (Clifford, 2010; Rea and Parker, 1997) and a population total of 1824, with 431 households in Sarteneja (Statistical Institute of Belize, 2013). The researcher determined that given the time and resources available, 100 surveys could reasonably be collected.

To randomly determine households to sample, Google Earth was used; 562 buildings were identified in Sarteneja using this method (see Figure 4). A community map of Sarteneja was overlaid in Google Earth to exclude non-residential or abandoned buildings; buildings were excluded if they were marked as a church, school, or police station, health centre, or if they were houses with no roof. Dwellings more than 50m from a road were also excluded (for safety reasons, i.e., dogs). Bus stations, bars and restaurants were included, as generally in Sarteneja, the owners of these businesses live in the same building as their business. Any building with a possibility of people living there was included and each building was assigned a number.
Given the expected response rate of paper surveys, 150 dwellings were chosen as the sampling frame. This number was chosen following estimates in the published literature that suggest an anticipated response rate of between 45 and 88% can be expected with paper surveys (Nulty, 2008; Shih and Fan, 2008; Wilks et al., 2007). The median, 66%, was used. The numbered list of buildings was then randomly ordered, and the first 150 dwellings on the list were chosen to include in the survey. Households were approached 3 times, and the survey was completed with the first person (over the age of 18) to answer the door; if no contact was made after the third attempt, houses were removed from the list. Some households were also eliminated as, upon arrival, they were either: 1) not a residence (6.7% - e.g., a large tin roof with no walls, used as an animal shelter); or 2) an unoccupied residence, confirmed by neighbours (13.3%). In total, 76 random household surveys were completed, representing 17.6% of households in Sarteneja; the survey response rate was 63.3%.

2.3.4 Semi-structured Interviews

After each survey, respondents were asked if they would like to participate in a follow-up semi-structured interview. This was the last stage of the data collection process, occurring in July and August 2015. Semi-structured interviews are one of the most important data collection methods in qualitative case study research, where researchers use a set of open-ended questions to loosely guide conversation around a specific topic (Cook and Crang, 2007; Yin, 2014). This allows respondents some agency in the research process, as they are free to identify anything that they feel is particularly important to them (Cook and Crang, 2007). These interviews were
designed to both explore key topics identified by the surveys in more detail, surrounding impacts and benefits (Objective 2) and to critically assess the use of indicators for assessing impacts (Objective 3). As time constraints prohibited interviewing all interested applicants, stratified purposeful sampling was used to ensure individuals from diverse occupations and backgrounds were included; Patton (1990) describes this process and locating “information-rich informants” (Patton, 1990, p.237). This process allowed the illustration of “particular subgroups of interest” (Clifford et al., 2010, p. 244). Interviews were conducted with eight community members and two Blue Ventures staff (Figure 5).

Indicators can serve as practical and useful tools for assessing and evaluating how a project or organization is performing; they can provide a relatively simple and standardized way to capture what is actually happening on the ground (Lupoli et al., 2014). However, it is important to critically assess the culture and discourse surrounding the use of indicators (Wahlén, 2014). Allowing a variety of stakeholders a say in assessing the processes and utility of indicators may better serve to ensure that respondents voice what is most important to them about impacts and perceptions. In this way, semi-structured interviews helped to capture any information about impacts that was missed by survey questions (Objective 2). Interviews were also designed to critically assess the use of indicators as a method for evaluating impacts and perceptions of NGO-led volunteer tourism marine conservation programs (Objective 3).

2.3.5 Participant Observation/Ethnographic Fieldnotes

Consistent with common data collection methods used in case study research, data was also collected using participant observation and ethnographic field note writing, throughout all stages of the research process (Baxter and Jack, 2008). Participant observation and ethnographic writing require the researcher to take part in the daily activities of research participants, in order to gain an understanding of “a situation in its natural or usual social context” (Belsky, 2004, p.277); this allows for the creation of more informal and relaxed spaces of exchange between researchers and participants (Belsky, 2004; Clifford et al., 2010). Interactions between Blue Ventures staff and volunteers, and community members in public spaces was observed, in order to gain an understanding of organizational practices, motives of individual behaviour, and connections between these. For example, the research participated in and observed several of Blue Ventures community engagement events and educational programs in local schools.
Figure 5 shows a summary of the chronological steps of the research process; each stage builds off of the methods and data collected in previous stages.

2.3.6 Data Analysis

Qualitative data from focus groups, the survey, interviews and participant observation were analyzed using qualitative data analysis software NVivo. Key themes were identified based on a constructivist grounded theory approach; this involved using inductive analysis, where terms, themes and ideas introduced by respondents were used as categories (Cope, 2005; Jackson, 2001; NVivo, 2015). Examples of key themes that arose from this process were: separation between locals and volunteer tourists, conflation of conservation organizations, and uneven distribution of benefits. Quantitative analysis of survey data was conducted using SPSS statistics software for descriptive and inferential non-parametric statistics. Pearson Chi-square distribution was used to determine if significantly different perspectives on impacts and benefits from conservation exist between groups in the community (e.g., do people with a higher rate of participation in conservation programs feel more positively about volunteer tourists? Do men or women feel differently about whether Blue Ventures has increased economic opportunities in the village?)
2.3.7 Research Ethics

As well as following the approved University of Guelph Research Ethics Board protocol, and obtaining verbal consent from all participants (see Appendices A to C), this research upheld the ethical standards as laid out by Clifford et al. (2010): a commitment to justice, beneficence/non-maleficence and respect. In addition, this research was inspired by principles from Participatory Action Research (PAR). PAR focuses on ethical and inclusive research with a practical outcome (Belsky, 2004; Greenwood, 1993; Rubin et al., 2012). While this research is not PAR, an effort was made to make the project as relevant and inclusive to local concerns as possible.

First, considerable effort was made to allow community members agency in the research agenda as well as the process, as is key in PAR (Pain, 2004). Although community members did not identify the research questions or research design, the researcher still worked to allow for community members to set the agenda of the research at many different stages: in the focus groups (by identifying key themes important to them); in surveys (by using open-ended survey questions) and in interviews (by following up on key pieces that they earlier identified as important). Every effort was made to thoroughly explain not only the research process but also the context; survey and interview situations where lengthy conversations about the research process and conservation context commonly occurred, with many participants stating their appreciativeness of this, in light of inappropriate research methods previously used by foreigners in the community (personal correspondence).

Second, every effort was made to disseminate results in methods appropriate to the community: all participants were asked if they would like to receive results. If requested, participants received a concise two-page summary of research results in Spanish, delivered in person. Where requested, results were talked through at length with participants. A community presentation in a neutral location (with invitations delivered in person) was held at the end of the field season. Copies of the condensed summary of results were also left at local stores, with SHG families, the Blue Ventures office, and were shared with other local conservation organizations. All this was done in accordance with preliminary findings regarding respondents’ preferred methods of communication by organizations in the village.

Finally, by turning the lens of ethnography on discourse produced by western and developed countries, this project attempted to contribute to decolonizing research. Within
several critical disciplines, and especially in geography, increasing awareness is being paid to the importance of recognizing the position of the researcher in their work (Sundberg, 2005). Many now argue that researchers are morally obliged to examine the ways in which their identity affects their research; this can work to overcome hierarchical and exploitative patterns of research (Chacko, 2004; England, 1994). This project contributed to this important work on positionality, through the researcher explicitly recognizing her position as a western, female researcher embedded in specific discourses of power. This is especially important given the status of Belize as a recent post-colonial nation-state (Belsky, 2004).
CHAPTER 3: MANUSCRIPT

“Only certain people benefit”:
Exploring community perceptions of marine conservation and volunteer tourism in Sarteneja, Belize”.

3.1 Abstract

Volunteer tourism, among the fastest growing subsectors of the tourism industry, has been frequently promoted as an ideal tool to use in the pursuit of both conservation and community development agendas. Given these claims, there is critical need to examine volunteer tourism in practice and to think about how to measure its impacts and understand how its benefits (if any) might be experienced across host communities. This paper adapts the framework of indicators for assessing the impacts of volunteer tourism recently proposed by Lupoli et al (2014) and Lupoli and Morse (2015), and uses them to explore impacts and perceptions of volunteer tourism projects run in Sarteneja, Belize by UK-based organization ‘Blue Ventures’. A mixed-methods case study approach was employed, and through 76 random household surveys, 10 semi-structured interviews and three focus groups, the research reveals that while volunteer tourism is thought to have some important positive economic and social impacts, a widely-held perception that benefits are unfairly distributed within the community exists. Therefore, while indicators can be useful for examining the types, and flow of, community impacts, perspectives from political ecology may help to shed light on important processes in, and outcomes of, such programs.
3.2 Introduction

Volunteer, eco- and conservation tourism are alternative forms of tourism that have become some of the fastest growing sub-sectors of the tourism industry in the last 20 years (Bakker & Lamoureaux, 2008; Tomazos & Butler, 2009; Tourism Research and Marketing 2008; World Travel and Tourism Council, 2015). Volunteer tourism refers to the combination of vacation and structured volunteer work “… that might involve aiding or alleviating the material poverty of some groups in society, the restoration of certain environments, or research into aspects of society or environment” (Wearing, 2001, p.1) Eco- and conservation tourism often overlap with volunteer tourism, where individuals work on nature-related projects with an educational and environmental/socio-cultural sustainability focus (Cousins, 2007; Weaver, 2001). Such programs are commonly viewed as a blend of tourism, conservation, and development work (Keese, 2011; UNWTO, 2016). Although scholarly attention to alternative tourism is building, host communities remain understudied relative to the individual volunteer or the organization providing the experience (Holmes et al., 2010; Smith and Holmes, 2009; Uriely and Reichel, 2000; Uriely et al., 2003; Wearing and McGehee, 2013).

Despite the perception that benefits from alternative tourism will accrue to communities, little research has focused on assessing actual impacts of volunteer tourism programs on communities; benefits have often been assumed rather than substantiated by empirical research (Lupoli et al., 2014). The importance of critically examining the role of communities has been demonstrated in (marine) conservation (Agrawal and Gibson, 1999; Campbell and Vainio-Mattila, 2003; Dressler, 2010; Ferse et al., 2010; Cinner and Aswani, 2007) and sustainable tourism and development (Botes and van Rensburg 2000; Cole, 2006; Scheyvens, 2003; Stone and Nyaupane, 2015; Tosun and Timothy, 2003) agendas. However, with the exception of a few, more recent studies (e.g., Lupoli et al., 2014; Sin, 2010; Zahra and McGehee, 2013), the volunteer tourism literature has largely not engaged with this topic. Therefore, despite the increase in literature that critically reflects on the role of host communities, there remains a lack of research that examines whether, and how, local people gain benefits through volunteer tourism programs (Lupoli et al., 2014). There is therefore a need to further develop and refine approaches to systemically and critically assess how volunteer tourism impacts host communities (Lupoli et al., 2014; Lupoli and Morse, 2015).
One approach that has been proposed is the use of indicators (Lupoli et al., 2014, p.901; Miller and Twining-Ward, 2005; Roberts and Tribe, 2008; WTO, 2004), which can be described as “measures of the existence or severity of current issues, signals of upcoming situations or problems, measures of risk and potential need for action, and means to identify and measure the results of our actions” (WTO, 2004, p.8). Indicators have been widely used in conservation, tourism, and sustainable development literature more broadly, but their use in assessing volunteer tourism programs is only just beginning (Lupoli and Morse, 2015). For volunteer tourism, the utility of indicators lies in their use as a practical tool for assessing and evaluating how a project or organization is performing, providing a relatively simple and standardized way of capturing what is actually happening on the ground (Lupoli et al., 2014). Such information can then promote identification and understanding of key changes in host communities, and can aid in informed decision-making and management of such programs (Budruk & Phillips, 2011; Miller & Twining-Ward, 2005; Sirakaya, Jamal, & Choi, 2001; WTO, 2004).

At the same time, some scholars suggest that the use of indicators by conservation organizations should be contemplated carefully (Stem et al., 2005; Wahlén, 2014). For instance, while indicators are often viewed as neutral measures, the use and choice of particular indicators can have certain implications for power dynamics between actors, and decision-making about conservation and tourism in practice (Lupoli and Morse, 2015; Wahlén, 2014). For instance, Wahlén (2014) demonstrated that differential power between groups (e.g., NGOs and donors controlling the funding), and organizational cultures, can encourage organizations to report results from monitoring and evaluation activities in ways that focus on success and exclude negative or critical results. Further, differing vocabulary, use of, and priority of indicators also means they are likely to be interpreted in different ways by different groups, making implementation and decision-making across contexts and projects difficult.

Lupoli and Morse (2015) note that who decides which indicators are used can determine what is measured and prioritized; this can be problematic when disadvantaged groups are either implicitly or explicitly left out of the conversation. For volunteer tourism, the perspectives of both community members and volunteer tourism organizations are important in deciding relevant and feasible indicators; if organizations hold more power than community groups, however, and must cater towards volunteer preferences, this could impact program and
monitoring and evaluation design in ways that may be undesirable for community members. Moreover, while indicators have been demonstrated to be useful tools for assessing impacts and perceptions, they may not capture the broader context, processes, and power relations that underlie them (Wahlén, 2014). This paper therefore draws on insights from political ecology in order to examine the broader relationships that structure interactions between humans and their environment (Nepal et al., 2016; Nepal and Saarinen, 2016; Stonich, 1998).

The purpose of this study is to develop a set of indicators adapted from Lupoli et al. (2014) and Lupoli and Morse (2015) and to employ them to assess the impacts and perceptions of Blue Ventures programming in Sarteneja, Belize. I argue that indicators can be useful tools for examining community-level impacts and responses to volunteer tourism. In particular, the use of indicators reveals that the uneven distribution of benefits from volunteer tourism is problematic, and may limit the extent to which volunteer tourism can generate support for marine conservation. However, while indicators point to what may be going on at a community level, insights from political ecology can aid in critically situating the use of, and data generated from, these indicators. Political ecologists have highlighted the importance of understanding the distribution of tourism benefits and impacts (e.g. Stonich, Belsky), and draw attention to the underlying factors and processes that inform community members’ perceptions.

I will begin by outlining relevant literature on host communities in volunteer tourism and describing relevant insights from political ecology. After a description of the context, case study and methods, findings relating to community perceptions of environmental, economic, personal well-being, and social indicators will be presented. Finally, a discussion of the findings in relation to key political ecology themes, and how they illustrate the utility and limitations of indicators in volunteer tourism, will be presented.

### 3.3 Host Communities, Impacts, and Metrics in Volunteer Tourism

Early research on host communities in volunteer tourism explored a range of positive social, economic and environmental impacts to local people from such programs (Wearing and McGehee, 2013). This is supported by similar research on other types of tourism (predating volunteer tourism research), especially studies of community-based tourism (Manyara and Jones, 2007; Phumsathan and Nepal, 2012; Sebele, 2010). Singh (2002), Broad (2003) and Higgins-Desboilles (2003) were among the first to research host-guest relationships in volunteer tourism.
tourism, reporting that volunteer tourism allows opportunities for positive cultural exchanges between hosts and guests. Wearing et al. (2005) proposed volunteer tourism as a ‘decommodified’ activity that places “social, cultural and ecological value” (p. 424) on tourism destinations and experiences, and allows tourism profits to benefit more local actors, in contrast with traditional, harmful and commodified forms of mass tourism. Wight (2003), Wearing (2004) and Brightsmith et al., (2008) highlighted the contributions that volunteer tourism programs can make to community development and environmental conservation research agendas. As such, much volunteer tourism literature portrays the activity as a means for developing countries to attain sustainable development (McGehee and Santos, 2005; Wearing, 2001).

A growing body of work questions these positive assertions and examines potential negative impacts to local people. Guttentag (2009), Lyons (2012), McGehee and Andereck (2008), Sin (2009, 2010) and Raymond and Hall (2008) show how volunteer tourism experiences are embedded in, and serve to reinforce, “existing power and social hierarchies between the rich and privileged, and the poor and less privileged” (Sin, 2010, p.991). In this way, volunteer tourism can be seen to encourage ‘othering’, and “rationalisations of poverty caused by intercultural experience” (Guttentag, 2009, p. 537), thereby reinforcing potentially harmful cultural stereotypes (Simpson, 2004) and emulating forms of neocolonialism (Palacios, 2010). An unequal distribution of benefits between volunteers and host communities has been identified, where project agendas are set and tasks completed by volunteers and organizations with the financial capital to do so, regardless of relevance to the community; volunteer tourists then come away with more benefits than local people (Sin, 2009; 2010). Importantly, this research shows that while advocates of volunteer tourism argue that the central aim is to help “poorer countries to develop” (Wearing and McGehee, p. 125), those involved may not fully recognize, and may not be equipped to address, volunteer tourism as a systemic contributor to poverty, inequality, and social (in)justice (Palacios, 2001; Sin 2009; 2010; Simpson 2004).

The body of literature on host communities and negative impacts demonstrates that research attempting to include host community perspectives towards volunteer tourism is growing (McGehee and Andereck, 2009; Sin, 2010; Zahra and McGehee, 2013); methods and frameworks for accounting and assessing impacts of volunteer tourism have also become more common (Lupoli et al., 2014; Zahra and McGehee, 2013). While this research represents a step
in the right direction, several scholars point out the continued lack of cohesive frameworks used to study volunteer tourism (McGehee, 2012; Wearing and McGehee, 2013). Further, scholars point out that research on how host communities operate within volunteer tourism continues to largely “not include the voices of host communities” that they seek to represent (Lupoli et al., 2014, p.899; Lyons et al., 2012). If volunteer tourism is to fulfill the expectation that it will benefit both conservation and communities, further research is needed to demonstrate whether and how this happens (Lupoli et al., 2014; Wearing and McGehee, 2013).

Lupoli et al (2014) and Lupoli and Morse (2015)’s framework of indicators for assessing impacts from volunteer tourism is based on Atkisson 2011’s Compass Sustainability framework. While scholars have proposed various frameworks for analyzing community sustainability, development, well-being and tourism (AtKisson 1996; 2011; Bossel, 2001; Cox et al., 2010; Njuki et al., 2008; Roberts & Tribe, 2008; Wood, 2004), this framework was chosen by Lupoli et al. in recognition of the idea that any indicators used must address a range of considerations, and emphasize “links between environmental conservation, poverty and economic welfare” as well as provide an “integrated view of relationship between tourism, economy, environment and society” (Lupoli et al., 2014, p.901). As such, this framework assesses impacts in four categories: environmental, economic, social and personal well-being. A subset of these indicators was used for this study (as outlined in section 3.5).

This paper adds to current literature on volunteer tourism by: 1) contributing critical and empirical research on host community impacts (including community perceptions of those who are impacted) from volunteer tourism, which scholars have identified as lacking; and 2) addressing the call for volunteer tourism research that uses explicit theoretical frameworks, by testing the utility of a framework of indicators through a political ecology lens. The following section will outline a political ecology approach to indicators in more detail.

3.4 Indicators in Volunteer Tourism: Insights from Political Ecology

While a single definition of political ecology remains elusive, the field is generally concerned with analyzing how the power-laden nature of political-economic structures, human interactions, and environmental discourses shape differential access to and benefits from natural resources (Campbell, 2007; Campbell et al., 2008; Stonich, 2003). Political ecology approaches have been employed in critical studies of conservation and NGOs (Levine 2007; Wahlén, 2014)
and in studies of (eco)tourism and community ecotourism (Belsky, 1999; 2004; Campbell et al., 2008; Mosedale, 2015; Nepal and Saarinen, 2016; Ojeda, 2012; Stonich, 2003; Young, 1999). However, research about volunteer tourism has yet to engage political ecology.

Political ecology analyses of mass tourism and ecotourism document the uneven distribution of benefits, which creates a range of problems for environmental management and produces or exacerbates inequalities within communities (Stonich 1998, 2003; Belsky, 1999; Cole, 2012; Nepal et al., 2016; Young, 1999). These studies argue that in order to understand control of, and access to benefits, a more complex portrayal of communities is needed. Specifically, the simplistic conceptualizations of community often used in ecotourism miss an analysis of political, historical, economic and social structures that are crucial to understanding whether, which, and how local people obtain benefits from rural resource management strategies such as ecotourism (Young, 1999). For example, Belsky (1999) showed how benefits can be appropriated by local elites or those who are already more well-off, when local political and social context is not taken into consideration.

Volunteer tourism has been touted as ostensibly better than other types of tourism because of the supposed social, economic and environmental benefits that can accrue to smaller-scale actors (Wearing et al., 2005). However, political ecology reminds us that the people and/or organizations who shape the objectives of alternative tourism and control access to resources remain those with the power to influence who benefits (Young, 1999). Volunteer tourism studies have largely not assessed host communities in the level of detail that political ecology studies suggest is appropriate (Cole, 2012; Nepal et al., 2016).

This study relies primarily on the development and use of indicators as a method that is useful for assessing nuanced local impacts and perceptions of volunteer tourism (Lupoli and Morse, 2015). It draws on the insights of political ecology studies of ecotourism, particularly regarding power, access to resources, and the distribution of impacts, in order to make sense of the political, historical, social, environmental and economic processes that produce the impacts documented using indicators.
3.5 Study Context and Research Methodology: Marine Conservation and Eco/Volunteer Tourism in Belize

Eco- and volunteer tourism programs in marine conservation are commonly involved in the collection of biophysical data, and environmental education and outreach (Halpenny, 2003); these programs are perceived as having the ability to provide both policy-relevant science to help guide conservation efforts (Brightsmith et al., 2008; Cuthill, 2000; Foster-Smith and Evans, 2003; Schmitt and Sullivan 1996; Wolfe and Pattengill-Semmens, 2013) and economic and social benefits to local communities (Clifton and Benson, 2006; Daldeniz and Hampton, 2013; Hampton and Jeyacheya, 2013; Klimmeck, 2013; Oram, 2002; Singh, 2002; Wongthong and Harvey, 2014). As such, volunteer and ecotourism are frequently promoted as ideal forms of support for marine conservation, and ideal solutions to complex rural development issues (Butcher and Smith 2010; Lupoli et al., 2014; Simpson, 2004; Young, 1999).

Since gaining independence from the United Kingdom in 1981, Belize has formally adopted ecotourism as a form of development, in line with many other Latin American states (Belsky, 2004; Conservation International, 2008; Diedrich and Garcia-Buades, 2009; Moreno, 2005; Stonich, 1998). Marine resources remain vital for Belize, as many coastal communities rely heavily on either fishing or marine-related tourism for their livelihoods (Conservation International, 2008; SACD, 2009; SACD, 2012); as such, a high percentage of income in Sarteneja is drawn from lobster, conch and finfish fisheries, although tourism is developing in the village (SACD, 2009).

In order to assess the interactions, impacts, and flow of benefits between volunteer tourism programs and local communities in marine conservation, a case study of UK-based organization Blue Ventures programming in Sarteneja, Belize, was used. They have been operating in Belize since 2010, with their headquarters located in Sarteneja, a community of 1824 people that remains the country’s largest fishing village (Statistical Institute of Belize, 2013; SACD, 2012).

3.5.1 Case Study Background

Blue Ventures’ mission is to “work with coastal communities to develop transformative approaches for catalysing and sustaining locally led marine conservation” (Blue Ventures, 2015). Founded in 2003, the organization is comprised of a charity, Blue Ventures
Conservation, and Blue Ventures Expeditions, a volunteer tourism enterprise (Blue Ventures, 2015). Their volunteer tourism program is therefore just one component of their work, with the explicit purpose of funding community-based conservation initiatives (Blue Ventures, 2015). Volunteers pay a fee to participate in diving expeditions to Bacalar Chico National Park and Marine Reserve (BCNPMMR), part of largest barrier reef in the world (Blue Ventures, 2015); there, they participate in underwater reef research (i.e., scuba diving to survey and monitor the reef and various species). While volunteers are in Sarteneja (usually during the first and last weeks of a six week-long trip to BCNPMMR), they work on a variety of projects, including giving presentations to local students about marine conservation, infrastructure projects, and community events. During this time, they stay with local host families through the Sarteneja Homestay Group (SHG). This is an independent organization created with the help of another local conservation group, that Blue Ventures use to provide volunteer accommodation.

Lionfish (*Pterois volitans*), venomous reef fish native to the Indo-Pacific region, were introduced to the Atlantic in the 1980’s (National Geographic, 2016). Their populations are now well-established throughout the Caribbean, including the length of coastal Belize (Chapman, 2011; National Geographic, 2016; Ruttenberg et al., 2012; Williams, 2010). Voracious appetites, fast reproductive and recruitment rates (the number of fish surviving until adulthood), and low numbers of natural predators (Chapman, 2011; Fishelson, 1997) often mean that lionfish negatively impact recruitment among native species, and outcompete other fish for prey (Albins and Hixon, 2008; Morris and Whitfield, 2009). Blue Ventures’ scientific and community conservation work focuses on eradication of lionfish, and on creating local, national, and global markets for this species (Chapman, 2011; 2013; personal correspondence). With regards to lionfish programming, Blue Ventures does the following in Sarteneja: undertakes data collection in BCNPMMR; runs volunteer tourism dives to cull lionfish; and, offers workshops on safe lionfish handling (to train fishers to safely catch the species) and lionfish jewelry making (where women make jewelry out of the lionfish fins).

### 3.5.2 Data Collection

This research used a mixed-methods approach (focus groups, random household surveys, semi-structured interviews, ethnographic field notes, and participant observation methods) to gather opinions on volunteer tourism and conservation impacts. All surveys and
eight of ten interviews were conducted in Spanish with a Belizean research assistant. The survey instrument was developed by modifying the framework of indicators developed in Lupoli et al (2014) and Lupoli and Morse (2015), for assessing impacts and perceptions of volunteer tourism in consultation with Blue Ventures staff, key informants, and through three community focus groups: one with fishers \((n=14)\), one with high school students \((n=7)\) and one with SHG women \((n=6)\). Focus group participants were chosen through purposeful sampling, and discussed participants’ opinions about impacts of volunteer tourism and conservation more generally, and how and whether the indicators presented were relevant for them (and if not, how they could be better adapted to suit their needs and interests). As the framework emphasizes a systems perspective (modified from AtKissons’ 2011 community sustainability compass concept), indicators were chosen in order to ensure that impacts could be measured across all proposed categories: environmental, economic, personal well-being and social. Of the 49 indicators presented in Lupoli et al (2014), and 44 in Lupoli and Morse (2015), 12 were chosen as the most relevant and appropriate for this case study and the research aim, through document review, Blue Ventures consultation, and community focus group feedback (Table 2). ‘Organizational transparency’, not originally included in Lupoli’s work, was included at the request of Blue Ventures and focus group feedback. Many of the indicators from Lupoli’s work were combined across categories, while many others were not perceived as useful for the purposes of this research.

Table 2. Final set of indicators adapted from Lupoli et al (2014), and Lupoli and Morse (2015).

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Community knowledge and awareness of conservation/ecological issues (^1)</td>
</tr>
<tr>
<td></td>
<td>Local community attitudes towards the environment and conservation (^2)</td>
</tr>
<tr>
<td></td>
<td>Community participation in conservation/natural resource decision-making</td>
</tr>
<tr>
<td></td>
<td>Degree of community participation in, and satisfaction with, conservation activities (^3)</td>
</tr>
<tr>
<td>Economic</td>
<td>Employment opportunities for community members</td>
</tr>
<tr>
<td></td>
<td>Income distribution within the community</td>
</tr>
<tr>
<td></td>
<td>Household income (^4)</td>
</tr>
<tr>
<td>Personal well-being</td>
<td>Satisfaction of community members with volunteer tourism program</td>
</tr>
<tr>
<td></td>
<td>Educational programs for schoolchildren</td>
</tr>
<tr>
<td></td>
<td>Environmental education for the community</td>
</tr>
<tr>
<td></td>
<td>Organizational transparency (^5)</td>
</tr>
<tr>
<td>Social</td>
<td>Satisfaction of community members with community life (^6)</td>
</tr>
<tr>
<td></td>
<td>Continuation of traditional cultural activities</td>
</tr>
</tbody>
</table>
Following the development of indicators, a random sample of 76 households were surveyed, representing 17.6% of households in Sarteneja (Statistical Institute of Belize, 2013); the survey response rate was 63.3%. Households were identified by numbering every potential dwelling in the village using Google Earth; this numbered list was then randomly ordered, and the first 150 dwellings were approached. Some households were eventually eliminated from the sample; upon arrival, 6.7% were not a residence (e.g., were instead a large tin roof with no walls, used as animal shelter), while 13.3% were unoccupied residences (confirmed by neighbours). Surveys gathered socio-economic and demographic data (age, gender, occupation, primary source of income, household size, number and age of children in house, school children attend), as well as community members perceptions of the impacts and benefits resulting from conservation and volunteer tourism projects, with a specific focus on Blue Ventures programs.

Following each completed survey, respondents were asked if they would like to participate in a follow-up interview. These semi-structured interviews \((n=8)\) explored key topics identified by the surveys in more detail, and were designed to critically assess the use of indicators as a method for evaluating impacts and perceptions of NGO-led volunteer tourism marine conservation programs. As time constraints prohibited interviewing all interested respondents, purposeful sampling was used to ensure individuals from diverse occupations and backgrounds were included. Finally, Blue Ventures full-time staff in Sarteneja were interviewed \((n=2)\).

Microsoft Excel, SPSS statistics software and qualitative analysis software NVivo were used to analyze the data. Statistical analysis involved descriptive statistic and inferential non-parametric statistics (Pearson Chi-square distribution) to determine if significantly different perspectives on impacts and benefits from conservation exist between groups in the community (e.g., do people with a higher rate of participation in conservation programs feel more positively about volunteer tourists? Do men or women feel differently about whether Blue Ventures has increased economic opportunities in the village?) NVivo was used to identify key themes in
qualitative survey, and interview data; a constructivist grounded theory approach was used, employing both inductive (identifying key themes based on explicit references to categories made by respondents) and deductive (identifying themes based on implicit ideas presented by respondents, or by analytical categories identified in the literature) approaches (Cope, 2005; Jackson, 2001).

In the context of this study, the prominent political ecology theme of ‘conservation and control’ (Robbins, 2004) suggested that data collection and analysis should attend to how impacts from conservation and volunteer tourism are distributed within Sarteneja (Belsky, 2004; Zimmerer and Basset, 2003). Therefore, in addition to presenting quantitative survey data for each indicator, I also draw on qualitative data to reflect on that indicator, with special attention to underlying processes, power relations, efforts to control access, and perceptions of these.

3.6 Results: Community perspectives of volunteer tourism and conservation

Survey respondents were 61% female; the median age was 35-44. The mean number of residents in each household was 4; 68% of households had children (under 18) living in them. The most common occupations of respondents were housewife (58%) and fishers (16%); trades, agriculture, service sector jobs, and conservation were the remaining occupations, each making up between three and eight percent of the totals. The most common primary source of income was fishing (47%), trades (17%) and the service sector (12%); 12% of households had no reported source of income. Agriculture, conservation and tourism were the remaining sources, making up between 1 and 8% of the totals. Indicators measured the impacts of volunteer tourism and conservation impacts in four areas: environmental, economic, personal well-being and social. The following sections discuss key findings in each category.

3.6.1 Environmental Indicators

Community knowledge and awareness of conservation/ecological issues:

There are five main conservation organizations in Sarteneja, including Blue Ventures; overall, there was a high awareness of these groups. With prompting, 97% of survey respondents knew of Blue Ventures. Easter Regatta (87%), BCNPMR field trips for local students (85%), and MPA classes/lionfish jewelry workshops (both at 69%) were the Blue Ventures activities survey respondents most commonly aware of. Blue Ventures lionfish
workshops were also commonly mentioned in interviews and focus groups, not only by those already involved in Blue Ventures work.

While a diverse range of understandings of environmental and conservation issues were encountered, overfishing and declining fisheries stocks (including the importance of protecting mangroves, fish and fish habitat more generally) (45%), pollution and proper waste disposal (with a particular emphasis on proper disposal of plastics, including stopping the practice of burning them, not littering in the ocean, and cleaning up public areas) (24%), negative impacts of invasive lionfish (25%), and the impacts of marine protected areas (MPAs) on fisher livelihoods (17%), were the most common themes raised by survey respondent’s as key concerning ecological issues. These issues were also raised repeatedly in focus groups and interviews.

**Local community attitudes towards the environment and conservation:**

A diverse range of attitudes and opinions were encountered the environment and conservation, from strong support for, to strong opposition to, conservation. Despite this, a high interest in learning more about and participating in Blue Ventures activities was expressed by survey respondents’ (88%) and many interview respondents.

Of the 17% who mentioned MPA impacts on livelihoods as a key issue (see above), opinions were largely divided as to whether these impacts were positive or negative: 9% of respondents mentioned they felt positively about MPAs, due to their perceived ability to provide jobs, tourism, and fish habitat. Many focus group and interview participants spoke about conservation as way of ensuring their families’ livelihoods for the future, given the perceptions of sharp fisheries decline:

...what the community is looking for right now is that they are able to survive...
if you consider fishing, it’s like gambling... you never know if you are going to win or lose. Maybe today you ... get a good catch, but then if you go again it will not go so well.

Others spoke about conservation organizations as important for bringing ‘movement’, activity, and positive forms of development to the village:

...they [conservation organizations] are the ones who create movement here in the community, because they bring people from other places and these persons are the ones who create the movement... all of us benefit in different ways.
Conversely, when asked about what benefits they would like to see from conservation organizations and activities in Sarteneja, many respondents spoke about perceived negative impacts of conservation, especially the MPA system surrounding Sarteneja; 8% of respondents felt that MPAs negatively impacted livelihoods, through loss of fishing opportunities and therefore income.

Seventy-three percent of respondents who had participated in any Blue Ventures activity felt that their attitude towards the environment had changed during or after their participation (see Table 2). The most frequent response was that attitudes changed towards waste and waste disposal, especially with regards to learning about how waste impacts the reef, and the importance of proper waste disposal. The second most frequent response concerned a more positive attitude towards reserves and protected areas; a new understanding of how conservation and tourism could provide jobs and economic benefit; and a change in knowledge and attitudes towards invasive lionfish. This is significant, given that fisher focus group participants identified this species as a serious and immediate threat to their livelihood. One respondent stated that

…before, fishers were afraid of lionfish but after training, they learned to catch this ... this is very good, because of negative impacts lionfish have on lobster and other fish... this is a great help.

Sixty-seven percent of respondents felt that Blue Ventures efforts to create markets for the sale of lionfish products had been successful; 22% mentioned that Blue Ventures lionfish work was one of their main impacts, and that they would like to be involved in these programs. Focus group, interview participants’, participant observation confirmed that Blue Ventures’ lionfish programs are, on the whole, positivity viewed. One interview respondent with very low participation in conservation and Blue Ventures activities stated:

Nobody here had ever told us about the lionfish and now the people from Blue Ventures are telling us that it can even be an edible food... I think that all these things [conservation, and lionfish activities, run by Blue Ventures] are very good for the community.
Community participation in conservation/natural resource decision-making:

As described in the previous section, survey, interview and focus group respondents expressed frustration around the perceived exclusion of fishers from marine conservation decision-making on a local and national scale. Beyond this, several interview respondents spoke about feelings of being undermined by others when they follow conservation laws (especially with regards to poaching by non-Belizeans in MPAs):

... there are people that are involved in ... conservation activities [that] do not obey them [the rules] ... I think that if we are going towards conservation, we have to be equal with everybody.

Degree of community participation in, and satisfaction with, conservation activities:

Overall, the survey found that participation in conservation/environment activities was lower than awareness (see Tables 3 and 4). While the programs appear to be reaching a range of community members, some activities are attended more by specific segments of the population (e.g., for instance lionfish jewelry workshops composed entirely of women, or lionfish safe-handling workshops composed of men); this will be discussed further in section 3.6.2.

When asked about satisfaction with activities (Table 4) those who had participated were largely satisfied or very satisfied. Of the households who had participated in more than one Blue Ventures activity, 84% reported receiving benefits from participation; environmental knowledge and awareness, and economic benefits, were the two most commonly mentioned benefits.

While many participants were satisfied with the activities themselves, a widely held perception that a select few group of villagers participate in, and therefore benefit from, conservation activities in Sarteneja, including Blue Ventures activities, was encountered with regards to findings from almost every indicator. This will be discussed in relation to economic indicators in the following section.

<table>
<thead>
<tr>
<th>Statement</th>
<th>% Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of Blue Ventures work</td>
<td>97%</td>
</tr>
<tr>
<td>Participated in any Blue Ventures activity</td>
<td>67%</td>
</tr>
<tr>
<td>Participated in 1 BV activity</td>
<td>27%</td>
</tr>
<tr>
<td>Participated in &gt;1 BV activity</td>
<td>40%</td>
</tr>
</tbody>
</table>
Table 4. Households' awareness, participation, and satisfaction with Blue Ventures' activities.

<table>
<thead>
<tr>
<th>Blue Ventures Activity</th>
<th>Description</th>
<th>% Aware</th>
<th>% Participated</th>
<th>Average satisfaction (scale from 1 to 5) ¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easter Regatta</td>
<td>Annual community Easter celebration ²</td>
<td>87</td>
<td>35</td>
<td>4.9</td>
</tr>
<tr>
<td>BCNPMR field trips</td>
<td>Local students participate in diving and data collection at BCNPMR</td>
<td>85</td>
<td>21</td>
<td>4.6</td>
</tr>
<tr>
<td>MPA classes</td>
<td>Volunteers and staff give workshops to local students on the importance of MPAs (part of the Belizian curriculum)</td>
<td>69</td>
<td>27</td>
<td>4.6</td>
</tr>
<tr>
<td>Lionfish jewelry workshops</td>
<td>Staff run workshops on making jewelry (earrings, necklaces) from lionfish fins ³</td>
<td>69</td>
<td>10</td>
<td>4.8</td>
</tr>
<tr>
<td>Bird-watching</td>
<td>With local students</td>
<td>60</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>BCNPMR data collection</td>
<td>Volunteer tourists do reef expeditions to monitor/collect data at BCNPMR</td>
<td>55</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Environmental parties</td>
<td>Themed community events hosted by Blue Ventures (Christmas party, Mangrove Fun Day)</td>
<td>53</td>
<td>15</td>
<td>4.9</td>
</tr>
<tr>
<td>Lionfish safe-handling workshops</td>
<td>Staff run workshops on how to catch lionfish without injury/what can be done with the product</td>
<td>52</td>
<td>13</td>
<td>4.9</td>
</tr>
<tr>
<td>English classes</td>
<td>With local students</td>
<td>45</td>
<td>10</td>
<td>4.7</td>
</tr>
<tr>
<td>Shipstern biodiversity classes</td>
<td>With local students</td>
<td>32</td>
<td>0</td>
<td>n/a</td>
</tr>
</tbody>
</table>

¹Scale used: 1, strongly dissatisfied; 2, somewhat dissatisfied; 3, neither satisfied nor dissatisfied; 4, somewhat satisfied; 5, strongly satisfied.
²Blue Ventures collaborates with other conservation organizations (such as the Sarteneja Fishermen Association) to run/participate in/help with conservation-related activities/games.
³As of August 2016, there is a lionfish jewelry cooperative that is heavily involved in this.

Processes informing environmental indicator results:

The ways in which research participants spoke about their knowledge, awareness, attitudes and participation in conservation activities was consistently framed within the context of severe resource depletion (overfishing) and environmental change (especially regarding
lionfish). The impact of these issues on village livelihoods was made clear by many focus group and interview respondents. One fisher stated that:

I have been going to the sea fishing since I was ten years old... since when I started, if you used to dive under a rock ... you will at least get 14 to 15 lobsters. And now in these days you can pass over and over and over and maybe one of these days you will get one lobster... instead of the industry growing, it’s declining.

Fears of declining fisheries and village livelihood affected individuals’ perceptions of conservation in very different ways. On the one hand, participants commonly spoke about economic motivations as the rationale for their desire to participate in conservation activities. For instance, in reference to the Blue Venture’s lionfish programs, one fisher stated that he would participate because “we kill the lionfish, or the lionfish kills us”. When asked what benefits people would like to receive from their participation in any conservation activities in Sarteneja during the survey, a total of 46 references were made regarding the possibility of economic help (assistance, money, specific skills and training, jobs) that could come from participation. While the data also suggests that those who are participating are receiving benefits beyond those that are economic, the need for new sources of income in light of the awareness of ongoing environmental degradation and perceptions of few other avenues for income, was made clear as one of the primary motivating reasons for participating in Blue Ventures activities. Further, many participants not currently involved with Blue Ventures work stated they felt that the government and Belize Tourism Board were not interested in developing tourism in Sarteneja, so residents had few other options for tourism income.

On the other hand, many participants interpreted ‘conservation’ to mean the current system of marine reserves; this system is currently so universally unpopular among many Belizeans that one respondent noted government authorities were thinking of changing the term ‘reserve’ to something different, in the hopes that this would allow for a fresh start at the relationship between conservation authorities and local fishers. While some fisher households in this study saw marine reserves as essential for continuing livelihoods, others had very negative opinions, due to the feeling that too many, and unfairly located, reserves caused a loss of household (and by extension village) livelihood. Again, the perception that very few other opportunities exist for income generation was reiterated, both by those that felt positively about
conservation, and those that did not. Fishers also brought up feelings of being disproportionately affected by MPAs and conservation measures, compared to others.

Especially among those households that felt negatively about conservation and marine reserves, participants’ perceptions tended to be based on a conflated view of all conservation organizations in Sarteneja (and some national government bodies associated with conservation); these views seemed to be heavily influenced by a few well remembered organizations and events in recent history. For instance, one fisher expressed anger with marine reserves and towards conservation organizations in Belize more generally because of his experience with a conservation organization that collected signatures for one stated purpose, but then used them without the fisher’s permission for an entirely different purpose (to exclude them from an important fishing ground). In another example, many participants (both fishers and others) expressed anger at conservation organizations that was rooted in events that happened many years ago, where residents remember a Belizean conservation organization being found guilty of fraud and money laundering.

By extension, other conservation organizations (including Blue Ventures, despite their lack of involvement in many of areas of conservation, such as the creation of marine reserves), were implicated:

… I think that the fishermen won’t be able to have much participation in that place [Bacalar Chico Marine Reserve] now … for the ones from Sarteneja that go to Bacalar Chico, they can no longer fish there, so they have to go at a farther distance, and what happens is that … they cannot bring economy to the community … this income … is exactly on what they [community members] depend. And so in that way I think that conservation activities are affecting the fishers… if it affects the fishers, obviously it affects the entire community.

Further, Blue Ventures’ conservation work was often associated with negative perceptions of other local organizations, not just national marine resource management strategies. Although some aspects of Blue Ventures’ work were distinguished (mainly, their volunteer tourists, and the lionfish program), other aspects were confused with the processes of these other local organizations by survey respondents. For example, respondents commonly spoke about the unfair distribution of scholarships for students in the community, in reference to Blue Ventures (despite Blue Ventures not having a scholarship program).
3.6.2 Economic Indicators

**Employment opportunities for community members:**

Sixty-nine percent of survey respondents, all interview and most focus group respondents felt that Blue Ventures had increased the number of economic opportunities for community members in Sarteneja. The most commonly mentioned mechanism across all methods was directly, through the SHG, and indirectly through volunteer tourists spending money (at local businesses like small grocery stores, bike rental shops, internet cafes, fruit stands, bars and restaurants, and through paying locals for guided tours, or to be shown traditional boat building activities). It is interesting to note that while the SHG was not created, and is not managed by Blue Ventures, it is perceived now as one of their most important impacts. Table 5 shows survey responses of the different ways in which Blue Ventures was perceived to increase opportunities.

Table 5. Survey respondent’s perceptions of ways Blue Ventures has increased economic opportunities.

<table>
<thead>
<tr>
<th>Statement: Blue Ventures has increased economic opportunities in Sarteneja through…</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>More training for the community</td>
<td>73</td>
</tr>
<tr>
<td>More jobs directly with the organization</td>
<td>65</td>
</tr>
<tr>
<td>More educational programs in schools</td>
<td>58</td>
</tr>
<tr>
<td>More jobs created indirectly</td>
<td>58</td>
</tr>
<tr>
<td>Different types of jobs</td>
<td>42</td>
</tr>
</tbody>
</table>

**Income distribution within the community:**

As with questions around *degree of community participation in, and satisfaction with, conservation activities*, the opinion that only a small group of people are participating in, and benefiting from, all conservation opportunities and activities in Sarteneja (not just those held by Blue Ventures) was commonly expressed (61%). As discussed above, while Blue Ventures was widely thought to increase economic opportunities, however, 67% of survey respondents felt that they were not personally benefiting from this. When asked what types of benefits people would like from participation in conservation activities, more open inclusion and participation in all activities was stated by ten survey respondents. This is strongly supported by interview and participant observation data, where almost all questions about benefits from activities also generated responses about the need for more inclusion.
**Household income:**

Fifty-three percent of households categorized their income as low or very low, 25% as acceptable, and 22% as good or very good. Thirty-four percent stated their income was worse or much worse than one year ago, while the same number felt there was no change; 32% stated it was better or much better. Fifty percent felt that their income was worse or much worse than five years ago, 17% felt there was no change, and 33% felt it was better or much better.

Seven percent of households felt that their household income had been positively affected by Blue Ventures. When analyzed, several associations were found between household income and other variables. First, there was a significant association between perceptions of whether annual household income was affected by Blue Ventures, and household participation in any conservation activities in Sarteneja ($\chi^2 (1) = 5.104, p < 0.05$). A larger proportion of respondents who participated in conservation activities perceived their household income to be positively affected by Blue Ventures, compared to those who had not participated. Second, a significant association was found between perceptions of positive household income change from one year ago, and households with any member in a conservation organization in Sarteneja ($\chi^2 (2) = 6.701, p < 0.05$). Households with a member belonging to any local conservation group felt that their income was better or much better than one year ago, compared to those who were not. Finally, there was a significant association between household income, and households that participated in Blue Ventures environmental parties ($\chi^2 (2) = 4.747, p < 0.05$). A higher frequency of respondents who rated their income as low or very low did not participate in Blue Ventures environmental parties, compared to other income categories.

**Processes informing economic indicator results:**

Respondents across all research methods commonly felt that there were too few opportunities and too little income being generated in Sarteneja more generally, for too few people:

*Today you have to be like a fish, like the barracuda, you have to sit and wait ... until a small job comes, you do it, and then you sit back and wait patiently for another one ... there is nothing stable.*
As mentioned in section 3.6.1, participants also felt that only certain people benefit from these opportunities. Interviewees noted a variety of political, social and economic factors that they felt affected participation in activities in Sarteneja in general, to varying degrees. These ‘certain people’ participating and benefiting were thought to be a combination of: 1) people already highly and repeatedly involved with conservation organizations and their activities; 2) leaders of organizations; 3) people either in, or affiliated with, certain families; and 4) people in specific political parties.

For instance, several interview respondents felt that only the leaders of organizations, and people highly and repeatedly involved in conservation, were benefiting:

... for me, the ones who are benefiting are the ones who manage these organizations. Apart from them, no one else is benefiting... there are only 5 persons and they are the ones who do all this work. And because these 5 persons do all their work, no other one can benefit from them ... there should be more opportunity for others.

... there is no distribution between the people in Sarteneja. It is the same certain people that get the money distributed among them. That is why we will never be able to change and advance, because it is the same ones who get everything, all the benefits that reach the village.

... here that is really difficult, because there are persons who really need it [economic opportunities and assistance], and they do not get it. And there are other persons that only because you are their best friend, even though you don’t need this assistance you still get it.

One interview respondent spoke about the social exclusion she felt because of this pattern:

I think that it is good that they give these trainings so that the people can learn, but again as how I tell you... it is the same ones. Let’s say we are talking right now and then maybe you will come and invite me and when I go there, everybody will start to wonder, who is this lady?

Sixty-two percent of survey respondents and many interview respondents mentioned that they felt only certain families benefited: 16% of survey respondents stated that they felt only
certain families benefited from conservation, and Blue Ventures work, while 13% said they felt only members of the SHG specifically were benefiting:

...only the ones in BCNPMR and homestay are benefiting, they [homestay] do not want to increase the numbers of people who benefit.

Only these 14 families are the ones who benefit and they are the ones who benefit throughout life.

Within those who felt that only SHG was benefitting, frustration was expressed around perceptions of exclusion for specific reasons by survey respondents, and many interviewees. For instance, several interview and survey respondents stated that you cannot participate in the SHG unless you already have a high standard of living (more rooms, enough space, running water, etc.); some interview respondents also perceived specific businesses (certain bars, restaurants, etc.) to be the same ones benefiting over and over again (for instance, the store located directly across from the Blue Ventures office receives a high amount of volunteer traffic).

One interview respondent stated that political factors strongly influence participation in activities, not only conservation activities, in Sarteneja:

There are also people that cook and take food to give in another place [for Blue Ventures], why can’t they invite more people and do the same thing, because let’s say, I don’t have a big house to offer foreigners because they live better than us, but there are other ways in which we can benefit from them. They do not involve you because you are blue or you are red [political affiliation]. It’s because of the politics, here in Sarteneja, are very very difficult.

...have them [Homestay] be more open... only people in the UDP [United Democratic Party] are in homestay.

National level politics were shown to have a strong influence at the local level; participant observation revealed that politics affect participation and access to benefits in several ways in rural northern Belize. For example, one participant shared his perception of not receiving government aid for rehabilitation after flooding, because he did not support the governing party (this meant that his neighbour received aid, but he did not). Another example in Sarteneja is the Mother’s Day, of which there are two, one for supporters of the United Democratic Party, and another for supporters of the People’s United Party.
This presents a challenge for several reasons. First, the desire for more economic opportunities for all villagers (students, women, fishers wishing to transition their income to other sources, retired people) was repeatedly voiced. Second, while many community members perceive the Blue Ventures to be associated with the management of the SHG, they are two separate entities. The SHG was created with the help of a different local conservation organization; Blue Ventures has aided the SHG in some management aspects since their creation, however, it is run independently of Blue Ventures (personal correspondence).

3.6.3 Personal Well-being and Social Indicators

**Satisfaction of community members with volunteer tourism program:**

High awareness (88%) and a range of attitudes towards Blue Ventures volunteer program, was found; the majority of survey respondents felt positively about the presence of volunteers in the village (Table 6). Positive perceptions were mostly associated with economic benefits (mentioned most frequently in survey responses, by 24% of respondents) such as the idea that the volunteer program brings economic development to the community (by spending money at local businesses, promoting Sarteneja as a tourist destination, and the idea that they are associated with projects such as the SHG). Bringing goods, or adding to the infrastructure of Sarteneja, was also frequently mentioned.

Table 6. Survey respondents’ perceptions of volunteer tourists in Sarteneja.

<table>
<thead>
<tr>
<th>Statement</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive feelings about the presence of volunteers in the village</td>
<td></td>
</tr>
<tr>
<td>Volunteers have an important economic impact</td>
<td></td>
</tr>
<tr>
<td>Volunteers help villagers learn English</td>
<td></td>
</tr>
<tr>
<td>Volunteers create new jobs for women through SHG</td>
<td></td>
</tr>
<tr>
<td>Volunteers bring interpersonal and social benefits</td>
<td></td>
</tr>
<tr>
<td>Volunteers do jobs that fishers don’t have time for</td>
<td>75</td>
</tr>
<tr>
<td>Negative feelings about the presence of volunteers in the village</td>
<td></td>
</tr>
<tr>
<td>Volunteers take jobs away from villagers</td>
<td></td>
</tr>
<tr>
<td>Volunteers do not contribute in a useful way to community life</td>
<td></td>
</tr>
<tr>
<td>Volunteers do not interact with/are separate from villagers</td>
<td></td>
</tr>
<tr>
<td>Indifferent about the presence of volunteers in the village</td>
<td></td>
</tr>
<tr>
<td>Volunteers are mostly at BCNPMR and do not affect the village</td>
<td>21</td>
</tr>
</tbody>
</table>

One interview respondent stated:

...volunteers come and paint buildings, the school, the community centre, the toilets, the seats on the pier, the library, they do other things too and when they
see things missing in the community they buy them, for example basketball hoops and soccer balls, and this is a good thing for the community.

It is important to note that some of these activities are done not by Blue Ventures volunteers but by expatriates, suggesting that there may be some confusion between volunteer organizations and individuals.

Beyond economic impacts, a range of important positive social, interpersonal and educational impacts were voiced by survey (17%), and interview and focus group participants as being associated with the volunteer tourism program. These included: 1) the ability to learn, and gain confidence in, speaking English; 2) the ability to have cultural exchanges and new interpersonal relationships; and 3) new sources of income for women. The importance of gaining English language skills; while this was voiced as especially important by the SHG focus group participants, many interview respondents’ not directly involved with Blue Ventures expressed this. For instance, one interview respondent stated:

... I agree with everything that Blue Ventures does, because they are trying to seek benefits for here, for example people that do not know how to talk in English, what they do is ... form a group and ... teach them about these things... I’ve learned a lot because I wasn’t able to speak any English at all, but now with them I am learning to say some words.

Finally, all women in the SHG focus group emphasized the important source of income that this opportunity provides for their household, where before they were not able to contribute to income earning in the family. Further, a few of these women stated that being involved in projects increased their feelings of confidence and usefulness in the village. Lionfish programs were also noted as important in providing new sources of income for women by focus group and interview respondents.

Negative and neutral perceptions of volunteer tourists were encountered in some surveys (Table 6), both from those who had previously had high involvement in Blue Ventures programs, and those who had not. However, while participant observation indicated some displeasure with volunteer tourists more generally in the community, most participants were generally reluctant to speak about Blue Ventures volunteers in anything less than very positive terms. This was especially true of those in the SHG benefiting directly from Blue Ventures volunteers. For instance, one focus group respondent, when asked to explain what she meant by stating that some volunteers have a negative impact in Sarteneja, explained:
For instance [...] other tourists in the village [...] could [have negative impacts] like when they go drinking or something when you see them at night, everyone knows this but Blue Ventures volunteers are different, we see good impacts from their activities, and they are polite, for instance if they want to smoke they ask.

Negative comments focused on the idea that volunteer tourists are taking potential jobs from villagers (expressed in interviews and focus groups). One interview respondent explained that she felt angry about this because:

...there are so many students here that don’t have work, and so many intelligent young Belizeans, so why do other students come here? Many young people are looking for work... and so volunteer tourists are not benefiting the village.

Two other interview respondents felt that volunteer tourists could spend their time on more useful activities within the village; this was often specifically related to MPA classes in schools. One survey respondent felt that volunteer tourists spent too much time on “...things that do not contribute, such as trying to teach children the exact pronunciation of some English words”.

Despite the many positive perceptions of volunteer tourists encountered, 42% of survey respondents mentioned a feeling of separation between Blue Ventures and the volunteer tourists; this feeling was given in response to a range of questions about perceptions of volunteer tourists, Blue Ventures impacts on education and community life more widely, and communication by conservation organizations, both by Blue Ventures and more generally. Respondents mentioned the idea that volunteer tourists do not integrate with villagers, and should socialize more with local people. When asked what benefits respondents felt they would like to receive from conservation and volunteer tourism activities, and how communication by Blue Ventures could be more effective with villagers, 15% of survey respondents felt that there was a separation specifically between the work that volunteer tourists do, and the work that villagers do. These respondents brought up the limited time volunteers spent in the village (one week at the beginning and end of each 6 week-long trip) compared to BCNPMR; this was felt to create a feeling of separation and exclusion between ‘volunteer’ and ‘villagers’ work. A disconnect was perceived therefore between the volunteer tourism program and community members. One interview respondent stated that “Volunteers only pay to go to BCNPMR, and the community doesn’t benefit from this”.

Some interview participants also felt that Blue Ventures should involve more local students and Belizean volunteers in their work, both in Sarteneja and at BCNPMR (with
technical scientific work), instead of placing emphasis on foreign volunteers. For example, several survey respondents stated that they would like to be specifically part of Blue Ventures work in BCNPMR. When analyzed, perceptions of volunteer tourists were found to be linked to perceptions of organizational communication; there was a significant association between respondent’s feelings about volunteer tourists, and perceptions of how well conservation organizations in Sarteneja communicate their activities ($\chi^2 (1) = 8.475, p < 0.05$). Respondents with that felt positively about the presence of volunteer tourists in Sarteneja were also more likely to feel that conservation organizations communicated their activities and processes effectively (by contrast, those with negative perceptions were more likely to feel that organizations did not community in an effective manner).

Confusion around Blue Ventures work, and the role of volunteers in this, was expressed by 38% of survey respondents and some interview respondents; many stated directly that they did not have a good understanding of Blue Ventures work, and asked the interviewer to explain. Conceptualizations of volunteer tourists ranged widely: some survey respondents talked about volunteers as people who helped the community for free, others felt that volunteer tourists were simply tourists or ‘gringos’, who spend a small amount of money in the community and then leave.

**Educational programs for schoolchildren:**

Eighty-nine percent of survey respondents felt satisfied or very satisfied with Blue Ventures educational school programs; however, respondents were on the whole the least satisfied with MPA classes (Table 3). One respondent stated that she felt MPA classes promoted the closure of fishing areas, which negatively affected her family’s livelihood; the other respondent felt that the use of volunteers in these classes was not a good use of Blue Ventures staff or volunteers’ time or effort, and that more useful contributions could be made.

**Environmental education for the community:**

Some interview respondents noted that they felt Blue Ventures activities were targeted towards children rather than adults. One interview respondent noted:

*Yes I am happy but as how I tell you they only focus on the children. And they do not focus on the adults. So the adults also need to refresh their mind in regards to*
what is conservation. Because when they get to the topic of conservation, what they think about it is that it [a fishing ground] has already been closed and you are already being chased out from those places...

Organizational transparency:

Forty-six percent of survey respondents felt that conservation organizations in Sarteneja do not clearly communicate their activities. In response to questions about transparency, communication and benefits, feelings of confusion, anger, mistrust and frustration were expressed around how organizations receive and use grant money in the village (29%); many interview respondents also voiced these feelings. Survey respondents who voiced these opinions spoke about perceptions that organizations in the village do not use grant money for what they publicly announce, and the idea that the grants and associated benefits do not reach villagers, or ‘those who really need them’.

Perceptions of transparency were found to be linked to level of household participation in conservation activities, and level of reported household income. There was a significant association between households with members in any conservation organizations in Sarteneja, and perceptions of how well conservation organizations in Sarteneja communicate their activities ($\chi^2(1) = 16.446, p < 0.05$). A very high proportion of households with no members in conservation groups felt that these organizations do not communicate clearly, compared to those households who were members. There was also a significant association between perceptions of how well conservation organizations in Sarteneja communicate their activities, and household income ($\chi^2(2) = 10.205, p < 0.05$). Household that rated their income as low or very low were more likely to feel that conservation organizations did not communicate their activities clearly.

Continuation of traditional cultural activities:

Thirty-seven percent of survey respondents were willing to share their cultural and/or traditional activities. The most commonly shared activities shared were Mestizo and Catholic religious customs (including church, Easter Regatta, Novena, Hoghead Dance or Cabeza de Conchina, and the Saptillado dance), Kekchi Mayan culture, and fishing and traditional boat-building activities. Important social values that surfaced in focus groups, surveys and interviews were the importance of respect, friendliness, and interpersonal interactions. For instance, during the fisher focus group, many fishers agreed that it was very important for people who come to
Sarteneja to socialize, be friendly, and care for people in the community. This was also mentioned by several interview respondents, while a few interview respondents noted that they felt friendship between people was important for the community as a whole. Some interview respondents also mentioned community unity, or what was termed ‘fabric of the community’ by a few.

The majority of respondents (75%) felt that Blue Venture activities were not impacting or affecting their ability to share cultural or traditional activities. Eight percent felt that Blue Ventures was impacting their activities; when asked to elaborate, these respondents felt that marine reserves and the organizations that support them (Blue Ventures, by implication) interfered with local fishing practices, therefore negatively affecting a village traditions. Beyond this, references to a general loss of cultural traditions, unconnected to Blue Ventures (especially, Mayan and Mestizo agricultural and food customs) were made in the SHG focus group, and interviews.

*Processes informing personal well-being and social indicator results:*

Several themes emerged across research methods with regards to satisfaction of the volunteer tourism program, and organizational transparency. First, those who were benefitting currently from volunteer tourism voiced generally only very positive opinions. For instance, during the SHG focus group, one of the women in a more prominent role within the group stated that “I don’t know what they do [out there at BCNPMR], but I know it’s good!” in response to any possible negative impacts of Blue Ventures tourists on Sarteneja. By contrast, those who are not currently, or were previously, benefitting from volunteer tourists, spoke more openly. For example, one interview respondent stated that volunteer tourists only come here to drink beer, but do not give back to the community.

A disconnect between local perceptions and awareness of volunteer tourism and Blue Ventures marine conservation activities was found. The way that respondents spoke about volunteer tourism was largely linked to income, but not often to conservation. Surprise was expressed by some participants, who did not know that volunteer tourists pay a fee to work with Blue Ventures. Through surveys, interviews and participant observation it became apparent that very few villagers were aware that Blue Ventures’ used volunteer tourism funding to support
their conservation initiatives. For instance, one respondent previously employed by Blue Ventures stated, “I don’t really know about them. What do they do? How do they do it?”.

A lack of trust in conservation organizations more broadly was also found, where a history of corruption in organizations (including conservation organizations) in Belize seemed to form the basis of respondents’ opinions. For instance, in response to survey questions about organizational transparency, several references were made to the idea that there is “no continuation or follow up with projects”. Another respondent summarized these opinions by stating that “organizations’ [should] not only promise, but actually do the activities [that they have advertised to villagers]”. These respondents then listed examples of previous organizations in Sarteneja that promised projects with benefits to local people, that villagers then did not feel were delivered upon. Respondents also commonly were confused about the process of grants; while these comments were largely not directed specifically at Blue Ventures, as a conservation organization operating in the village and collaborating with a number of local organizations, Blue Ventures’ work was also implicated. Interview and participant observation data also support that Blue Ventures suffers from broader negative opinions of conservation organizations and their communication. For instance, survey respondents commonly spoke about the organization only hiring their own family members (as Blue Ventures staff in Sarteneja are not locals, this does not apply).

3.7 Discussion

Overall, the framework of indicators adapted from Lupoli et al (2014) and Lupoli and Morse (2015), revealed the multiple ways in which residents of Sarteneja perceive Blue Ventures marine conservation and volunteer tourism program to be impacting their community. The combination of environmental, economic, personal well-being and social indicators revealed whether, which, and how many people are participating in their programs, how their organizations and programs are viewed (both by those who participate and those who do not), and what community members desire from Blue Ventures’ work, therefore providing a means of collecting important baseline data for Blue Ventures community-based work. Beyond this, indicators served to highlight key themes important to community members, notably: 1) perceptions of uneven distribution of benefits; 2) positive perceptions of (and the desire for) tourism overall; 3) a disconnect between local perceptions and awareness of volunteer tourism
and Blue Ventures’ marine conservation activities; and 4) a lack of trust in conservation organizations more broadly.

While indicators “provide a meaning that extends beyond the attributes associated with statistics and raw data” (Lupoli et al., 2014, p.901), perspectives from political ecology informed attention to contextual factors that appear to influence why and how community members responded to Blue Ventures programs in the ways they did. This approach demonstrated that while volunteer tourism is purported to be a ‘better’ type of tourism (Wearing et al., 2005; Wearing & Ponting, 2006), it has the potential to be subject to the same pitfalls as ecotourism (Butcher; 2006, 2011; Orams, 2002; Gray and Campbell, 2007).

A range of indicators demonstrated that community members perceived uneven distribution of benefits from conservation and volunteer tourism activities in the community. Stakeholder groups identified as those benefitting most from conservation and tourism activities (the SHG, specific families, those with certain political affiliations, and those in positions of power in conservation) are not mutually exclusive; therefore, many perceived that benefits flowed to a group of individuals already more well off than most in the community. Appropriation of benefits by local elites, or distribution of benefits to those with access to the material and social resources that allow them to take advantage of such resource management strategies, has been explored in several political ecology studies (Young, 1999). Belsky (1999) demonstrated that projects implemented without concern for existing social boundaries and conflicts are unlikely to succeed in the long term. Young (1999) showed how the implementation of ecotourism projects can exacerbate competition within communities (where the competition is now over tourists, who are often a sporadic and highly versatile source of income). Finally, an analysis of the perceived injustice in distribution of benefits from tourism is critical to assess, as these perceptions can lead to either an increase or decrease in support for these types of programs (Young 1999). This overlaps with volunteer tourism literature on host communities that show that where people perceive benefits, they are likely to support such programs (McGehee and Andereck, 2008).

Within this case study, these themes are best exemplified by tension and jealousy around the perceived exclusiveness of the SHG (especially where a certain standard of wealth was perceived to be needed in order to be allowed into the group). Critically examining tensions caused by the SHG is particularly important, as Belsky (1999) points out that “… accepting one
characterization over another may determine who speaks for a community” (p. 644). Homestay groups have so far been seen as one of the most important ways that volunteer tourism can provide income to smaller scale actors (Wearing and McGehee, 2013), in contrast to other forms of tourism. If the SHG is seen to represent Sarteneja, important factors determining people’s support for conservation and volunteer tourism programs may be missed. For instance, claims of volunteer tourism benefitting communities tend to only focus on those who benefit, ignoring the distribution; however, as this study showed, what people think about the distribution of benefits matters for whether and/or how they support such programs.

Despite tensions around the distribution of benefits, the study found overall largely positive perceptions of (and the desire for) any form of tourism. While the desire for tourism as a new and different means of income was clear, respondents had different ideas about what this might look like. For instance, during the SHG focus group, one participant stated that more tourism was always better, but another participant disagreed, saying that tourists should be welcome only so long as they do not treat Sarteneja like a place only for resort vacations, as in nearby San Pedro. These themes are consistent with literature that shows local people do often want benefits from tourism (Gray and Campbell, 2007; Segi, 2012; Silva and Motzer, 2014), especially where fishing is seen as an “economic dead end” (Young, 1999, p.599) and even if they perceive the distribution of benefits as problematic. In this case study, stakeholders were particularly interested in economic benefits from tourism because of specific environmental, political and social factors (a sharp decline in income from fishing, and perceptions of lack of any other opportunities for development). The desire for economic benefits in this study was very important, as it dictated to varying degrees what individuals were willing to say about Blue Ventures and their programs. This is most notable regarding volunteer tourists, as fear of withdrawal of benefits likely was a factor in individuals who currently benefit directly from volunteer tourists not voicing any negative or even neutral opinions.

A disconnect between local perceptions and awareness of volunteer tourism and Blue Ventures marine conservation activities was found, where individuals were largely supportive of volunteer tourists, but were not aware of the Blue Ventures model of using profits from volunteer tourist expeditions to fund conservation programs. This is problematic, given that Blue Ventures was associated with a lack of trust in conservation organizations more broadly, combined with a tendency for individuals to conflate many different conservation organizations
together. Negative opinions of the marine reserve system in Belize, of the ways in which organizations receive and use grant money, and of organizational transparency in general, were shown to influence perceptions of Blue Ventures, regardless of their involvement in certain activities. Ecotourism and volunteer tourism have been generally promoted as activities that generate support for conservation, although this has often not been the case in practice (Belsky, 1999; Bennet and Dearden, 2014; Rattan et al., 2012). However, Young (1999) suggests that the right institutional capacity and circumstances may promote support for conservation. In this case study, support for volunteer tourism and conservation activities (or lack thereof) was strongly linked to previous events (especially poor practices by previous conservation organizations, and feelings of exclusion and disproportionately high impacts to fishers from conservation measures). Volunteer tourism does not exist in a vacuum; negative perceptions of conservation more generally were shown not just to reflect the work of Blue Ventures, but to reflect perceptions of the entire conservation and marine reserve system in which they are embedded. Therefore, support for volunteer tourism and conservation activities is highly dependent on the social and political context in which conservation measures have been, and are currently, implemented.

Political ecology studies argue that that the simplistic conceptualizations of community often portrayed by alternative tourism is problematic, given that political, economic and social structures are crucial to understanding how and whether people get benefits from rural resource management strategies such as ecotourism (Young, 1999). While many of the same issues inherent in ecotourism have been identified for volunteer tourism in this case study, the volunteer tourism literature has largely posed it as a new kind of tourism; critical engagement with the complexity of communities and factors that determine whether and how volunteer tourism benefits conservation and communities have largely not been studied. While this study showed that indicators were successful in revealing some important benefits to communities through volunteer tourism, if the claims that volunteer tourism can benefit both conservation and communities is to be verified, more research into how indicators can interpret complex communities and their responses to volunteer tourism programs is needed.
3.8 Conclusion

As host communities play an indispensable role in volunteer tourism programs, and are key players in conservation, an understanding of the role of communities in these programs must be obtained before the effectiveness of NGO-led volunteer tourism as a conservation tool can be evaluated. In order to do this, methods for appropriately assessing volunteer tourism must first be developed and tested. This study demonstrated how the impacts of volunteer tourism programs on host communities in environmental, economic, personal well-being and social spheres could be documented, using surveys, interviews, and focus groups to collect data on specific indicators. It found indicators to be useful tools for gathering data on nuanced community impacts of volunteer tourism and marine conservation programs. Consistent with the political ecology literature, this study also demonstrated the importance of interpreting local opinions and attitudes in relation to contextual factors and underlying processes that influence how community members perceive conservation and volunteer tourism activities. This research contributes to the scholarship and practice of volunteer tourism by demonstrating the limited and unevenly distributed benefits of volunteer tourism, and the difficulty of connecting those benefits to conservation. It found that while local people largely appreciate benefits from volunteer tourism and conservation programs, more, and more equal distribution of benefits, are desired by many. Further research should continue to develop, and assess the use of, indicators as a tool for assessing NGO-led volunteer tourism program impacts in specific contexts.

3.9 References


Fishelson, L. (1997). Experiments and observations on food consumption, growth and


CHAPTER 4: CONCLUSIONS

4.1 Thesis Summary

NGO-led volunteer tourism is frequently promoted as an ideal tool to use in the dual pursuit of marine conservation and community development. We know that if conservation is to be effective, we need to consider impacts on communities; volunteer tourism is no different. This research builds on research beginning to systematically address the lack of information on host communities in volunteer tourism, and methods for accounting and assessing impacts of volunteer tourism on host communities. Using a case study of local impacts and perceptions of Blue Ventures programming in Sarteneja, Belize, an adapted framework of indicators introduced by Lupoli et al (2014) and Lupoli and Morse, (2015), and insights from political ecology, the interactions, impacts, and flow of benefits between volunteer tourism programs and local communities in marine conservation was assessed.

Results of focus groups, household surveys, semi-structured interviews, and participant observation show that indicators, when used appropriately and in combination with other methods, were able to capture some important economic and socio-cultural impacts of Blue Ventures work. Community members largely appreciate that there are some positive benefits from marine conservation and volunteer tourism programs, but many desire a more, and more equal distribution, or benefits; such programs are unlikely to provide enough benefits for a whole community. The findings also show the difficulty in connecting benefits from volunteer tourism to conservation work. Appendices A and B show a summary of key findings related to each indicator.

Insights from political ecology suggests that the use of indicators benefits from supplemental investigation. In this regard, four key themes emerged from the research: 1) positive perceptions of (and the desire for) tourism overall; 2) perceptions of uneven distribution of benefits; 3) a disconnect between local perceptions and awareness of volunteer tourism and Blue Ventures marine conservation activities; and 4) a lack of trust in conservation organizations more broadly. While the use of indicators uncovered these themes, it did not capture the thinking behind these perceptions; this is problematic, as the context for community members’ perceptions is key in determining how they respond to conservation interventions.
The following section will outline the scholarly and practical contributions that this research makes.

4.2 Contributions of the Research

This research contributes to both the scholarship and practice of volunteer tourism, and NGOs and communities in conservation, and makes an effort to ensure that volunteer tourism benefits both marine conservation and communities. Further, this study contributes to the newly emerging scientific narrative of volunteer tourism literature identified by Wearing and McGehee (2013) that calls for nuanced and detailed research based on empirical/conceptual findings, and a strong theoretical foundation, that “contributes to the dissemination of new ideas that represent best practice in the social development of communities through volunteer tourism” (p.122).

4.2.1 Scholarly Contributions

This research contributes a nuanced understanding to the volunteer tourism literature of how NGO-led volunteer tourism impacts host communities, and contributes to conservation; this study found that volunteer tourism programs can offer some benefits to both.

First, volunteer tourism programs have been attributed with bringing new employment opportunities to (Hampton and Jeyacheya, 2013; Wongthong and Harvey, 2014), and increasing social capital in (Zahra and McGehee, 2013), host communities. This study found that volunteer tourism was perceived as bringing new economic opportunities to the community, especially for women. However, these opportunities were seen as limited, and largely separate from the conservation activities of Blue Ventures (with the exception of lionfish programs). Economic opportunities were instead largely in the form of selling goods and services to volunteer tourists; this was seen as providing an important, but sporadic, form of income. Volunteer tourism was also associated with some positive social impacts (for instance, through helping community members learn English). Despite this, a disconnect between Blue Ventures volunteer tourists, conservation activities, and the lives of villagers, was found, as well as dissatisfaction with the idea that volunteer tourists were potentially taking away jobs from villagers. These views fit with literature on the negative impacts of volunteer tourism, that suggest its ability to negatively
impact local economies and reinforce separations between western volunteers and host community members (Guttentag 2009).

These findings further contribute to the volunteer tourism literature by revealing new understandings of the limitations of the volunteer tourism model. One of the study’s central findings was a widely-held perception that benefits from volunteer tourism programs are unevenly distributed within the community. Given what literature on communities, conservation and tourism (and in particular, political ecology studies of ecotourism) have documented, this is not necessarily surprising. However, these findings demonstrate that despite volunteer tourism being able to deliver some of the benefits it has been associated with, the same impacts and issues with distribution of benefits seen in other types of tourism are also seen here. Volunteer tourism therefore cannot provide benefits to an entire host community. These findings suggest the need to be cautious about the limitations of volunteer tourism as a conservation and development solution. However, despite perceptions of uneven distribution of benefits, community members still largely supported, and desired more benefits, from volunteer tourism. This suggests that while there are some serious limitations to the volunteer tourism model, it is still worth pursuing.

From a conservation standpoint, this thesis contributes to a greater understanding of the effects of NGO and community-based conservation programs; this is a necessary step in order to evaluate the effectiveness of marine conservation programs that use volunteer tourism (Lupoli et al., 2015). While Blue Ventures programs contributed to conservation in a variety of ways (through helping with the eradication of lionfish, for instance), this study calls into question volunteer tourism as a means of generating local support for conservation. This is due to the disconnect between perceptions of community benefits and conservation that was found. Importantly, this finding is also relevant more broadly for market-based conservation models. While in this instance, this model helped to convince some local actors to behave in a way that benefitted conservation (for instance, in this case by convincing some fishers that it makes economic sense to catch lionfish), for most other community members, the connections between benefits and conservation were unclear. Further, volunteer tourism was shown to have the unintended consequence of exacerbating perceptions of inequality, and tension within the community, a charge against market-based approaches more broadly. Market-based approaches to resource management such as volunteer tourism should therefore be pursued with caution.
While NGOs do therefore have the potential to deliver benefits to people and conservation in the Global South, their role should continue to be assessed. In this study, fear of withdrawal of current or future benefits from Blue Ventures work played a role in what community members were willing to divulge about the organization. This demonstrated the power and influence that NGOs such as Blue Ventures have in rural communities, especially where there are perceptions of very few other opportunities for income generation.

Finally, this research contributes to the literature by modifying and testing a framework of indicators for understanding impacts from volunteer tourism and conservation programs (Lupoli et al., 2014; Lupoli and Morse, 2015). The study found indicators to be a useful tool for assessing community-level impacts of volunteer tourism. In this case, they showed that volunteer tourism can have important economic and social benefits; they also revealed where community members were dissatisfied with the volunteer tourism model more generally. However, the data collected from indicators could be strengthened by drawing on work from other disciplines. For instance, this study demonstrated that insights from political ecology can be useful for uncovering specific (historical, social, political) factors that were key in influencing community member’s perceptions. Volunteer tourism does not exist in a bubble; rather, external factors (created long before volunteer tourism projects arrive) are key in determining individuals’ reactions to such interventions. Consistent with the assertions of Lupoli and Morse (2015), this study emphasized that indicators are most likely to be effective at giving an accurate depiction of local impacts and perceptions when developed: 1) in combination with different local stakeholder groups, and not just those that are dominant within the community; and 2) when mixed methods are used to collect associated data. These two approaches can work towards ensuring that differing viewpoints and values of community members are taken into consideration, and therefore, that data is collected on a range of phenomena relevant to local people as well as volunteer tourism organizations.

4.2.2 Practical Contributions

From a practical standpoint, this research will provide Blue Ventures with important feedback on their programs, including baseline information on awareness and participation rates of specific activities, and on the effectiveness, impacts, and perceptions, of their work more broadly in Sarteneja. It can also help them further develop metrics for assessing their
community-based work. Beyond this, the research will provide a feasible way for other organizations involved in conservation and volunteer tourism to improve their work, by offering concrete suggestions for how nuanced community impacts can be assessed using appropriate and relevant evaluation techniques. Hopefully, this work will allow for a more careful assessment on behalf of volunteer tourism organizations involved in conservation, of the role of communities and local people in their programs.

For conservation organizations besides Blue Ventures who are considering volunteer tourism as a method for achieving their aims, this research also contributes practical information about the limitations of the volunteer tourism model for providing benefits to host communities. Despite the dissatisfaction with the distribution of benefits in this study, the importance of Blue Ventures programs to some in Sarteneja should not be understated; many community members expressed both a strong appreciation for the work that Blue Ventures is doing, a desire for more tourism, and dissatisfaction at the limitations of other, current opportunities. These findings then again bring into question the limitations of the volunteer tourism model. Do community members have unrealistic expectations of benefits? Or are volunteer tourism organizations promising more than they can offer? Or is this a limitation of the volunteer tourism model?

While Blue Ventures could be more aware of their role (for instance, by working to include those who are not already participating in their activities), there is only so much they can do. For instance, Blue Ventures only has two staff members based in Sarteneja, and the funding they receive from volunteer tourists must stretch to pay for all of Blue Ventures Belize expenses. Further, while many respondents associated the exclusiveness of the SHG with Blue Ventures, Blue Ventures does not control admission to this group. Therefore, community benefits from volunteer tourism are not just about who is doing what, but about how community dynamics interact to shape perceptions of these conservation activities; these perceptions then play a key role in community members willingness to accept volunteer tourism programs as a viable and alternative source of income. In this case, the volunteer tourism model appears to be unable to support all of the economic and social desires of the entire community; clear communication and organizational transparency on the part of Blue Ventures then becomes particularly important to community members, whose expectations of benefits are high. However, the volunteer tourism industry continues to grow at an impressive rate (Wearing and
McGehee, 2013); as such, it is important that practical methods of assessing community impacts and benefits, and minimizing any potential risks, are developed.

4.3 Limitations and Future Research/Recommendations

As in any research, there are some limitations to this study. First, some confusion between organizations in Sarteneja occurred when respondents were answering questions. Blue Ventures volunteers were often distinguished from other volunteer tourists in the community, as were lionfish programs; however, questions around benefits, distribution, grants and scholarships generally drew negative responses about conservation organizations in general in Sarteneja, and some in particular. It is unclear the extent to which respondents think about conservation organizations separately; it could be the case that respondents’ answers were influenced by specific local events and politics occurring in Sarteneja during the time of the research project. It could also be the case that community members do not distinguish between organizations. Therefore, it is difficult to directly attribute some data to Blue Ventures and/or to volunteer tourism.

Participant observation indicated that some respondents felt negatively about a few aspects of impacts from western culture in general, including but not limited to, volunteer tourists; however, political and social influences may be preventing individuals from answering questions honestly due to fear of possible withdrawal of benefits. For instances, in some cases, survey respondents answered questions more honestly after re-establishing that the interviewer was not a direct employee of Blue Ventures, or a volunteer tourist.

Finally, few participants in the research process acknowledged that they were involved in tourism. This is partly due to the Sarteneja Tour Guide Association not issuing licenses for the year fieldwork was conducted. Views of tour guides and others who are more involved in conservation should be considered more carefully in the future. Further, disproportionately few fishers were included in the research process, largely due to timing of the fishing season.

These limitations, and the findings of this research, point to some key future areas of research in volunteer tourism, community-based conservation, and political ecology studies. First, this project represents an early step towards understanding nuanced community impacts from volunteer tourism; the methods presented in Lupoli et al (2014) and Lupoli and Morse (2015) and emulated here represent replicable, community-engaged ways to utilize indicators in
volunteer tourism. Despite this, it is important to both situate research to local contexts, and to work to develop holistic understandings of phenomenon. Future research should therefore continue developing indicators, especially in order to adapt them to specific cases, in ways that make them locally appropriate and useful for measuring specific impacts. At the same time, it is necessary to continue to critically assess their use (using such frameworks as political ecology), to address the limitations of volunteer tourism as it continues to grow and expand.
CHAPTER 5: REFERENCES


Halpern, B., Walbridge, S., Selkoe, K., Kappel, C., Micheli, F., D’Agrosa, C., … Watson, R.


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# Appendix A: Summary of Key Findings

Table 7. Summary of key findings related to each indicator.

<table>
<thead>
<tr>
<th>Indicators¹</th>
<th>Key Findings</th>
</tr>
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<tbody>
<tr>
<td><strong>Environmental</strong></td>
<td>Survey data:</td>
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</table>
| Community knowledge and awareness of conservation/ecological issues (adapted from ‘community knowledge of conservation/ecological issues’) | • High awareness of all 5 main conservation groups in Sarteneja  
• 97% awareness of Blue Ventures  
• Blue Ventures activities with highest awareness:  
  - Easter Regatta (87%)  
  - BCNP MR field trips (85%)  
  - MPA classes/lionfish jewelry workshops (69% each)  
• Key concerning ecological issues:  
  - Overfishing/declining fisheries stocks (45%)  
  - Pollution/proper waste disposal (24%)  
  - Negative impacts of invasive lionfish (25%)  
  - Impacts of MPAs on fisher livelihoods (17%)  |
| Local community attitudes towards the environment and conservation (adapted from ‘local community attitudes towards the environment’) | Survey data: |
| | • 88% interest in learning more about/participating in Blue Ventures activities  
• Key attitudes encountered:  
  - Positive perceptions of conservation tied to MPAs and ability to support for jobs, tourism, and fish habitat (9%)  
  - Negative perceptions of conservation tied to MPAs and ability to negative affect fishers livelihoods (8%)  
• 73% of participants in any Blue Ventures activity reported a change in attitude, mainly regarding:  
  - Waste/waste disposal  
  - Marine reserves/protected areas  
  - Conservation and tourism’s ability to bring economic benefits  
  - Invasive lionfish.  |
| Community participation in conservation/natural resource decision-making | All data: |
| | • Perceived exclusion of fishers from MPA decision-making on a local and national scale  
• Perceptions of being undermined by others when conservation laws followed (especially with regards to poaching by non-Belizeans in MPAs)  |
| | Survey Data: |
Degree of community participation in, and satisfaction with, conservation activities (adapted from ‘degree of community participation in conservation activities’)

- **97%** aware of Blue Ventures work
- **67%** have participated in any Blue Ventures activity
  - 27% have participated in 1 activity
  - 40% have participated in >1 activity
- Blue Ventures activities with highest participation:
  - Easter Regatta (35%)
  - MPA classes (27%)
  - BCNPMR field trips (21%)
- Most highly ranked Blue Ventures activities:
  - Bird watching
  - Easter Regatta/lionfish safe handling workshops/environmental parties
- Least highly ranked Blue Ventures activities:
  - BCNPMR field trips
  - MPA classes
- **84%** of households participating in >1 Blue Ventures activity reported benefits from participation, namely: environmental knowledge and awareness, and economic benefits

**Interview/focus group/participant observation data:**

- Some activities attended more by specific segments of the population:
  - Lionfish jewelry workshops composed entirely of women, lionfish safe-handling workshops composed of men
- Perceptions of uneven distribution of benefits across all indicators

**Significant associations:**

- Significant association between household income, and households that participated in Blue Ventures environmental parties ($\chi^2 (2) = 4.747, p < 0.05$)
  - A higher frequency of respondents who rated their income as low or very low did not participate in Blue Ventures environmental parties, compared to other income categories

### Economic

#### Employment opportunities for community members

**Survey Data:**

- 69% feel that Blue Ventures has increased economic opportunities, through:
  - More training for the community (73%)
  - More jobs directly with the organization (65%)
  - More educational programs (58%)
  - More jobs indirectly (58%)
  - Different types of jobs (42%)

**Interview/focus group/participant observation data:**

- Blue Ventures has largely increased opportunities directly (through the SHG) and indirectly (through volunteer tourists spending money in Sarteneja)
- Desire for more economic opportunities frequently encountered

#### Income distribution within the community

**Survey data:**

- 61% perceive an unfair distribution of income and opportunities
- 67% feel they are not personally benefiting from any increase in opportunities attributed to Blue Ventures

**Interview/focus group/participant observation data:**

- Unfair distribution of income perceived, linked to only a few that benefit from conservation activities, those being:
  - People already highly and repeatedly involved with conservation organizations and their activities
  - Leaders of organizations
  - People either in, or affiliated with, certain families
  - People in specific political parties
- Perceptions of exclusion by the SHG common, linked to Blue Ventures reputation

**Survey data:**
| Household income  
(adapted from ‘per capita income’) | • 53% categorized household income as low/very low; 25% as acceptable; 22% as good/very good  
• 34% felt household income was worse/much worse than 1 year previous; 34% no change; 32% better/much better  
• 50% felt household income was worse/much worse than 5 years previous; 17% no change; 33% better/much better  
• 7% of households felt household income had been positively affected by Blue Ventures  

**Significant associations:**  
• Significant association between perceptions of whether annual household income was affected by Blue Ventures, and household participation in any conservation activities in Sarteneja ($\chi^2 (1) = 5.104, p < 0.05$)  
  ➢ A larger proportion of respondents who participated in conservation activities perceived their household income to be positively affected by Blue Ventures, compared to those who had not participated  
• Significant association was found between perceptions of positive household income change from one year ago, and households with any member in a conservation organization in Sarteneja ($\chi^2 (2) = 6.701, p < 0.05$)  
  ➢ Households with a member belonging to any local conservation group felt that their income was better or much better than one year ago, compared to those who were not  

| Personal well-being  
Satisfaction of community members with volunteer tourism program | Survey data:  
• 88% aware of Blue Ventures volunteer tourists  
• Positive perceptions of volunteer tourists (75%):  
  ➢ Economic benefits (spending money at local businesses; promoting Sarteneja as a tourists destination; ‘bringing’ projects like SHG; new jobs for women; bringing goods and helping with infrastructure; doing jobs that fishers don’t have time for)  
  ➢ Interpersonal, social benefits (helping villagers learn English, friendships)  
• Negative perceptions of volunteer tourists (4%):  
  ➢ Take away jobs from villagers; do not contribute in a useful way to community life; do not interact with/are separate from villagers  
  ➢ 42% mention feelings of separation between villagers work and volunteer tourists work, especially regarding scientific activities  
• Indifferent to volunteer tourists (21%):  
  ➢ Volunteer tourists mostly at BCNPMR and do not affect village  

**Interview/focus group/participant observation data:**  
• Positive perceptions of (and the desire for) tourism overall  
• A disconnect between local perceptions and awareness of volunteer tourism and Blue Ventures marine conservation activities  
• Many respondents, especially current beneficiaries of such activities, unwilling to voice neutral or negative opinions of volunteer tourists  

**Significant associations:**  
• Significant association between respondent’s feelings about volunteer tourists, and perceptions of how well conservation organizations in Sarteneja communicate their activities ($\chi^2 (1) = 8.475, p < 0.05$)  
  ➢ Respondents with that felt positively about the presence of volunteer tourists in Sarteneja were also more likely to feel that conservation organizations communicated their activities and processes effectively (by contrast, those with negative perceptions were more likely to feel that organizations did not community in an effective manner)  

| Survey data: |
| Educational programs for schoolchildren | • 89% satisfied or very satisfied with Blue Ventures school programs; but MPA classes in schools ranked as one of activities respondents least satisfied with (connected to negative views of MPAs)  
• More useful contributions could be made |
| Environmental education for the community | **Survey data:**  
• Blue Ventures programs tend to focus on children; desire for adult education |
| Organizational transparency (indicator not from Lupoli et al (2014), or Lupoli and Morse (2015; included during Blue Ventures consultation phase and focus group feedback)) | **Survey data:**  
• 46% felt that conservation organizations in Sarteneja do not clearly communicate activities  
**Interview/focus group/participant observation data:**  
• Broad lack of trust in conservation organizations more broadly found, especially regarding grants  
**Significant associations:**  
• Significant association between households with members in any conservation organizations in Sarteneja, and perceptions of how well conservation organizations in Sarteneja communicate their activities ($\chi^2(1) = 16.446, p < 0.05$)  
  ➢ Very high proportion of households with no members in conservation groups felt that these organizations do not communicate clearly, compared to those households who were members  
• Significant association between perceptions of how well conservation organizations in Sarteneja communicate their activities, and household income ($\chi^2(2) = 10.205, p < 0.05$)  
  ➢ Household that rated their income as low or very low were more likely to feel that conservation organizations did not communicate their activities clearly |
| Satisfaction of community members with community life (data from this indicator was presented, along with all other relevant data, in a separate report to Blue Ventures; it was not included in the manuscript, as it does not directly relate to the research aims, but was included as a precursor to a community needs assessment; see Appendix B for more) | **All data:**  
• Community life could be improved significantly through economic improvements (100 references made); social and personal well-being improvements (54 references made); and environmental improvements (17 references made)  
• Desire to shift incomes from fishing to tourism related activities |
| Social | **Survey data:**  
• 37% willing to share cultural/traditional activities:  
  ➢ Mestizo/Catholic religious customs (church, Easter Regatta, Novena, Hoghead dance, Cabeza de Conchina, Saptillado dance), Kekchi Maya culture, fishing and traditional boat building, most commonly cited  
**Interview/focus group/participant observation data:**  
• Social values deemed important: respect; friendliness; interpersonal interactions |

1 The left column shows the final set of indicators used, adapted from Lupoli et al (2014) and Lupoli and Morse (2015). In italics are the changes made from the original set of indicators. For further information on how this process was completed, see Table 1 in Chapter 2.
Figure 6. Survey respondents’ views on what could improve community life in the village. This data was collected at the request of Blue Ventures, in preparation for a potential community needs assessment by Blue Ventures, as was therefore not included in the manuscript results.
Appendix C: Oral Consent Script and Information Sheet (Surveys)

ORAL CONSENT SCRIPT FOR SARTENEJA COMMUNITY SURVEY

My name is Sarah Ravensbergen and I am a graduate student from the Department of Geography at the University of Guelph, in Canada. I am conducting research in Sarteneja to understand how Blue Ventures’ volunteer program and conservation activities are impacting the local community. This research is being conducted under the supervision of Dr. Noella Gray and is supported by the Social Sciences and Humanities Research Council in Canada. Our contact information is included on this sheet – please contact us with any questions about the project. If you have any concerns about the project, please contact the Director of Research Ethics at the University of Guelph. [Hand out “Information Sheet” rather than read email addresses/phone numbers out loud – point to the contact details on the Information sheet].

You are invited to take part in this research in order to share your views as a resident of Sarteneja. If you choose to participate, we will ask you to answer questions as part of a survey and record your answers. It will take about 25 minutes. Your household was randomly selected. I am hoping to speak with 100 people in the community as part of this survey.

I am not working for Blue Ventures or the government of Belize. A summary report of all of the results of all of the surveys will be shared with Blue Ventures, but your identity will be kept confidential and they will not know what you said. I will not record your name and no one will be able to identify you based on your answers. There is no direct benefit for you, but we hope that the results of this research will help Blue Ventures to understand how their programs are impacting the community of Sarteneja. Hopefully, the information collected will contribute to better conservation and volunteer tourism practices. The results of the survey will be presented in a report to Blue Ventures and in a presentation to the community at the end of July.

Your participation in this project is voluntary. If you agree to participate, you may skip any question you prefer not to answer. You may also stop completing the survey at any time. After we complete the survey, you cannot withdraw from the study because your survey cannot be identified (it will not have your name on it).

The data collected for this study will be stored at the University of Guelph for seven years, after which it will be destroyed. It will be included in reports and publications.

Are you willing to complete a survey at this time?

If yes: Thank you – please keep this Information Sheet so you can contact me with any questions.

If no: Would you be willing to complete the survey at a later time?
  • If yes: Leave an ‘Information Sheet’. Arrange a mutually convenient time to return; re-read script on return.
  • If no: Thank you for your time and have a nice day.
RESEARCH INFORMATION SHEET – SARTENEJA COMMUNITY SURVEY

You have been invited to participate in a research project. It is being conducted to understand how Blue Ventures’ volunteer tourism and conservation activities are impacting the community of Sarteneja. Volunteer tourism is when people from other countries come to work with organizations in Sarteneja on specific projects (for example, when students from Europe come to help with Blue Ventures presentations in the local schools).

Who is conducting this research?
- Sarah Ravensbergen, a graduate student from the Department of Geography at the University of Guelph, in Canada. You can reach her at sravensb@uoguelph.ca
- Her supervisor is Dr. Noella Gray. You can reach her at grayn@uoguelph.ca or 1-519-824-4120 ext 58155.
- Please contact us with any questions about the project.

Who is supporting this Research?
- This project is funded by the Social Sciences and Humanities Research Council of Canada.

What am I asked to do and why?
- You are invited to take part in this research in order to share your views as a resident of Sarteneja.
- Your household was randomly selected. We are hoping to speak with 100 people in the community as part of this survey.
- If you choose to participate, we will ask you to answer questions as part of a survey and record your answers. It will take about 25 minutes.

Benefits:
- There is no direct benefit for you, but we hope that the results of this research will help Blue Ventures to understand how their programs are impacting the community of Sarteneja.
- We do not know of any risks for you if you participate in this study.

What will happen with the information I provide?
- The researchers are not working for Blue Ventures or the government of Belize. A summary report of the results of all of the surveys will be shared with Blue Ventures, but your identity will be kept confidential and they will not know what you said.
- Your name will not be recorded and no one will be able to identify you based on your answers.
- The results of all of the surveys will be presented in a report to Blue Ventures and in a presentation to the community at the end of July.

What else should I know?
- Your participation in this project is voluntary.
- If you agree to participate, you may skip any question you prefer not to answer. You may also stop completing the survey at any time.
• After the survey is complete, you cannot withdraw from the study because your survey cannot be identified (it will not have your name on it).
• The data collected for this study will be stored at the University of Guelph for seven years, after which it will be destroyed. It will be included in reports and publications.

If you have questions regarding your rights as a research participant, contact:
Research Ethics Director Telephone: (519) 824-4120, ext. 56606
University of Guelph E-mail: sauld@uoguelph.ca
437 University Centre Fax: (519) 821-5236
Guelph, ON N1G 2W1
Canada
Appendix D: Oral Consent Script and Information Sheet (Focus Groups)

RESEARCH INFORMATION SHEET – FOCUS GROUPS

You have been invited to participate in a research project. It is being conducted to understand how Blue Ventures’ volunteer tourism and conservation activities are impacting the community of Sarteneja.

Who is conducting this research?
• Sarah Ravensbergen, a graduate student from the Department of Geography at the University of Guelph, in Canada. You can reach her at sravensb@uoguelph.ca
• Her supervisor is Dr. Noella Gray. You can reach her at grayn@uoguelph.ca or 1-519-824-4120 ext 58155.
• Please contact us with any questions about the project.
• The researchers are not working for Blue Ventures or the government of Belize. However, results of the research will be shared with these groups.

Who is supporting this research?
• This project is funded by the Social Sciences and Humanities Research Council of Canada.

What am I asked to do and why?
• You are invited to take part in this research in order to share your views as a resident of Sarteneja, to identify aspects of Blue Ventures’ activities that matter to you.
• If you choose to participate, you will contribute to a focus group (a group conversation) that will last between 45 and 90 minutes. The researcher (Sarah Ravensbergen) will guide the conversation.
• With your permission, the conversation will be audio recorded in order to create a transcript of the conversation.

Benefits:
• There is no direct benefit for you, but we hope that the results of this research will help Blue Ventures to understand how their programs are impacting the community of Sarteneja.
• We do not know of any risks for you if you participate in this study.

What will happen with the information I provide?
• The researcher will use the information gained during the focus group to identify issues that matter most to residents of Sarteneja. The researcher will then prepare a survey, to ask residents their opinions on these issues.
• Things that people say during the focus group may be quoted in reports or publications. However, your name will not be used. Comments will be described generally, such as “a member of the community of Sarteneja said that volunteer tourism brings money to the community.”
• Although the researcher will not use your name, we cannot guarantee confidentiality because focus groups are conversations with other people. Please ensure that you are comfortable making public any information you share during the focus group. Out of respect for other participants, please do not disclose who was present or what they said during the focus group.

What else should I know?
• Your participation in this project is voluntary.
• If you agree to participate, you may stop participating at any time without consequences. You may also refrain from answering any questions that you prefer not to answer.
• After the focus group is complete, your words cannot be removed or deleted from the transcript because it is a group conversation.
• Once the focus group is complete, the audio file will be transcribed and then deleted. The transcript will be saved on the researcher’s encrypted computer. It will only be accessible to the researcher and her advisor.
• The data collected for this study will be stored at the University of Guelph for seven years, after which it will be destroyed. It will be included in reports and publications.
• The research is independent from Blue Ventures and the government; the researcher is not affiliated with either group. However, Blue Ventures will be participating in the focus group, as an important stakeholder.

What are the next steps?
• If you would like to fill out the final version of the survey, or have a copy of the results of the project once it is over, please leave your information with the researcher. A presentation of some results will also be held at the end of July, for anyone who would like to attend.

If you have questions regarding your rights as a research participant, contact:

Research Ethics Director  Telephone: (519) 824-4120, ext. 56606
University of Guelph     E-mail: sauld@uoguelph.ca
437 University Centre    Fax: (519) 821-5236
Guelph, ON  N1G 2W1
Canada
Appendix E: Oral Consent Script and Information Sheet (Interviews)

For follow-up survey or focus group respondents:
My name is Sarah Ravensbergen, and I’m the Master of Arts student from the Department of Geography at the University of Guelph, Canada, who is researching the impacts of Blue Ventures volunteer tourism and conservation activities on the community of Sarteneja. I recently completed a survey/focus group with you, and you indicated that you would be willing to complete a follow-up in-person interview. The interview will focus on your opinions about the impacts of Blue Ventures on yourself and on the community of Sarteneja, the survey/focus group process and whether it was useful to you, and how it could be made better.

If you’re still willing to do this, then I would ask that we schedule an interview time that is convenient for you; the interview will likely last between 45 minutes and 1.5 hours. You are free to skip any questions you don’t feel comfortable answering, or stop the interview at any time.

With your permission, the interview will also be audio recorded in order to create a transcript of our conservation (this makes it easier to for me to focus on the conversation rather than on writing, and ensures that anything you say is accurately recorded). If this is okay with you, then I will record the interview, and then transcribe it within two weeks. It will then be deleted from the recorder and the interview file will be transferred to a secure location on my laptop; no one but me will have access to this information.

A reminder that this research is being conducted under the supervision of Dr. Noella Gray, and I am working independently as a research assistant for the University of Guelph and am not in the direct employment of Blue Ventures or the Belizean government. While the results will be shared with Blue Ventures, any information you provide in the interview is completely anonymous and no one will be able to identify you based on your answers. Portions of the interview transcript may be used in future publications (in the form of direct quotations), however, your name or other personal information will not be used. I will take measures to ensure your confidentiality within the final publication but it is still possible that specific details you provide in the interview could indirectly identify you. For this reason, please only share details and information that you would be comfortable making public.

If you have any questions or concerns about the research please feel free to contact me or Dr. Noella Gray. I will leave these information sheets with you so that you have all of the information about the research and know how to contact me with questions or concerns.

For new respondents:
My name is Sarah Ravensbergen and I am a Master of Arts student from the Department of Geography at the University of Guelph, Canada. I’m conducting interviews of community members, volunteer tourists, and staff of Blue Ventures, in order to explore how Blue Ventures volunteer tourism and conservation activities are impacting the local community. Through the interviews, I hope to gain information on your opinions about the impacts of Blue Ventures on yourself and on the community of Sarteneja and… This research is being conducted under the supervision of Dr. Noella Gray, and I am working independently as a research assistant for the
University of Guelph and am not in the direct employment of Blue Ventures or the Belizean government.

Would you be willing to complete a survey on this topic? If you’re willing, then I would ask that we schedule an interview time that is convenient for you; the interview will likely last between 45 minutes and 1.5 hours. You are free to skip any questions you don’t feel comfortable answering, or stop the interview at any time.

With your permission, the interview will also be audio recorded in order to create a transcript of our conversation (this makes it easier for me to focus on the conversation rather than on writing, and ensures that anything you say is accurately recorded). If this is okay with you, then I will record the interview, and then transcribe it within two weeks. It will then be deleted from the recorder and the interview file will be transferred to a secure location on my laptop; no one but me will have access to this information.

While the results will be shared with Blue Ventures, any information you provide in the interview is completely anonymous and no one will be able to identify you based on your answers. Portions of the interview transcript may be used in future publications (in the form of direct quotations), however, your name or other personal information will not be used. I will take measures to ensure your confidentiality within the final publication but it is still possible that specific details you provide in the interview could indirectly identify you. For this reason, please only share details and information that you would be comfortable making public.

If you have any questions or concerns about the research please feel free to contact me or Dr. Noella Gray. I will leave these information sheets with you so that you have all of the information about the research and know how to contact me with questions or concerns.
Appendix F: Survey Instrument

SURVEY: Assessing the impacts of Blue Ventures work in Sarteneja, Belize

1. What is your primary occupation?

2. What is your household’s primary source of income?

3. What is your age?
   ___18 – 24
   ___25 – 34
   ___35 – 44
   ___45 – 54
   ___55 – 64
   ___65 – 74
   ___75 +

4. How many people currently live in this household?

5. If children live in the household, what age are they?
   (*need to get at what year they are in school, especially if in Standards 2 or 5)

6. What school do they go to?
   ___Roman Catholic School (number of children that attend: ___)
   ___Nazarene School (number of children that attend: ___)
   ___Sarteneja Baptist High School (number of children that attend: ___)
   ___Preschool (number of children that attend: ___)

7. What is the respondent’s gender?
   ___Female
   ___Male

8. Are you aware of volunteers in Sarteneja?
   ___No
   ___Yes

9. How do you feel about volunteers in Sarteneja?

10a. Which organizations are you aware of in Sarteneja?

   Blue Ventures
   Respondent mentions on own, no prompting —
   Respondent is aware of, but only after name mentioned —
   Sarteneja Alliance for Conservation and Development (SACD)
   —
   —
| Sarteneja Fisherman’s Association (SFA) |               |               |
| Wildtracks                          |               |               |
| Belize Audobon Society              |               |               |
| Mar Alliance                        |               |               |
| Other                               |               |               |

10b. Are you (or anybody in this household) a member of any group here in Sarteneja?

| Blue Ventures                      |               |
| Sarteneja Alliance for Conservation and Development (SACD) |               |
| Sarteneja Fisherman’s Association (SFA) |               |
| Wildtracks                          |               |
| Belize Audobon Society              |               |
| Mar Alliance                        |               |
| Homestay Group                     |               |
| Sartenejenas                       |               |
| Other                               |               |

11a. Are you aware of conservation and environment events/activities in Sarteneja?

| No                                  |
| Yes                                 |
| Unsure                              |

11b. Have you or anyone in your household participated in, or are you currently participating in, any of these conservation and environment events/activities?

| No                                  |
| Yes                                 |
| Unsure                              |

11c. If yes, which ones?
12a. Have you or anyone in your household participated in, or are you currently participating in, any of the following conservation and environment events/activities?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Respondent is aware of activity, but only after name mentioned</th>
<th>Respondent participated in activity</th>
<th>Level of satisfaction with participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPA lessons in schools (only for young children)</td>
<td></td>
<td>Y= yes N= no</td>
<td>1= very satisfied 2= somewhat satisfied 3= neither satisfied nor dissatisfied 4= somewhat unsatisfied 5= very unsatisfied</td>
</tr>
<tr>
<td>English lessons in schools (only for young children)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bacalar Chico field trips (mostly for students)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lionfish jewelry making workshops (only for women)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lionfish safe handling training (only for men)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birdwatching (mostly for students)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipstern biodiversity class (mostly for students)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental parties (Christmas Party, Mangrove Fun Day)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easter Regatta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diving and data collection in Bacalar Chico (mostly for volunteers)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12b. In your opinion, do you think Blue Ventures efforts to create a market for the sale of lionfish have been successful?

___ No
___ Yes
___ Somewhat successful
___ Unsure
13a. Do you feel that you have received any benefits from participating in these activities?
   ___ No
   ___ Yes
   ___ Unsure

13b. If yes, what are they? (for example, economic, educational, language, other?)

13c. What benefits would you like to receive?

14a. Did your participation in these activities change the way you think about conservation or the environment in Sarteneja?
   ___ No
   ___ Yes
   ___ Don’t know

14b. If yes, how?

15a. Do you feel that these organizations (that you mentioned) are communicating their activities well?
   ___ No
   ___ Yes
   ___ Don’t know

15b. Are you interested in learning about them?
   ___ No
   ___ Yes
   ___ Don’t know

15c. In what ways could Blue Ventures better communicate their activities?

16a. In your opinion, has Blue Ventures increased the number of economic opportunities for people in Sarteneja?
   ___ No
   ___ Yes
   ___ Unsure
   ___ A little

16b. Have you benefited in any way from these economic opportunities?
   ___ No
   ___ Yes
   ___ Unsure

16c. If yes, in which ways?
   ___ More jobs being available directly with the organization
   ___ More jobs created indirectly
   ___ Volunteers spending money at local businesses
Different types of jobs being available
More training programs for residents
Other

16d. Do you think more people could benefit from these opportunities? If yes, how?

17. Do you feel that your annual income as a household has been impacted by Blue Ventures?
   ___ No
   ___ Yes
   ___ Unsure

18. In general, would you say that your income is:
   ___ Very low
   ___ Low
   ___ Adequate
   ___ High
   ___ Very high

19. Compared to one year ago, how would you rate your annual income as a household, in general, now?
   ___ Worse
   ___ A bit worse
   ___ About the same
   ___ Better
   ___ Much better

20. Compared to five years ago, how would you rate your annual income as a household, in general, now?
   ___ Worse
   ___ A bit worse
   ___ About the same
   ___ Better
   ___ Much better

21a. Do you think that Blue Ventures is supporting education in Sarteneja?
   ___ No
   ___ Yes
   ___ Don’t know

21b. If yes, how?

22a. Are you happy with Blue Ventures school and educational programs?
   ___ No
   ___ Yes
   ___ Don’t know
22b. What could be improved?

23a. Do you have cultural/traditional activities or values that you would like to share with us?
   ___ No
   ___ Yes

23b. If yes, what are they?

23c. Do you feel that Blue Ventures has changed your ability to share your cultural activities and values with others?
   ___ No
   ___ Yes
   ___ Unsure

23d. If yes, how?

24. What do you feel are the most important impacts from Blue Ventures work?

25. Do you feel that there are things that could improve the community as a whole?

Thank you very much for your time. I will hold a presentation at the end of July with some of the results. Are you interested in:

A follow-up interview to further discuss this topic?
Seeing a copy of the initial results, before any presentations or analysis?
Receiving a copy of the results of the research project?

Follow-up:
   ___ Respondent wishes to be contacted for follow-up interview
   ___ Respondent wishes to be contacted with initial results
   ___ Respondent wishes to be contacted with final results
   ___ Respondents’ contact information listed on separate sheet
Appendix G: Interview Guide

1. A. Can you tell me about your involvement/participation with conservation and environmental groups in Sarteneja?
B. What about with Blue Ventures specifically?
   *(Tailor this question depending on survey information: if not involved in conservation activities, ask about their involvement generally with organizations in Sarteneja, what they are involved with, what kind of work and activities they do here)*
   A. What does conservation mean to you, here in Sarteneja?
   B. Do you think that conservation affects your daily life here?
   C. If so, how? In what ways?

2. A. Blue Ventures runs a volunteer tourism program to help them with their conservation efforts. Volunteer tourists are people who come from other countries, like England or the US, who pay a fee to help organizations here with specific projects. BV volunteers come to help do programs in local schools (like the MPA program), and then go to Bacalar Chico to dive and do surveys of the species on the reef. Programs like this are often thought of as a very positive form of conservation, and a positive means of development for communities. Do you agree with this? Why or why not?
B. How do you think volunteer tourists impact local people? (For example, on local culture, economy, social life? Are they seen as the same as other tourists, or different?)

3. A. What impacts do you think conservation groups are having in Sarteneja? (For example, on local culture, economy, social life? Positive, negative?)
B. Do you think that the work of conservation groups in Sarteneja are benefiting local people? If yes, how? In what ways?
C. What about BV specifically, do you think they are benefiting local people? If yes, in which ways?
D. What about impacts on different groups here - fishers? Women? Children?
E. Most people we have surveyed in this study are saying that only certain people benefit from the work of organizations like Blue Ventures. Do you agree with this? Why or why not? Who exactly is benefiting?

4. A. This project is looking at the impacts of BV work from conservation and tourism in some specific areas. We would like to ask your opinion about whether you think these areas are important to look at, and whether you think they are a good way to find out what exactly is happening as a result of/from BV work.

   The first area we would like to look at is the economy in Sarteneja. In this project, we are trying to find out about economic impacts of BV work by looking at the following topics:

   - locally made marketable products/creation of local business
   - economic opportunities for community members
   - income distribution within community
   - Training programs for community members
For each of these: What does this mean to you? Do you think that this is an important topic to look at when trying to find out about the impacts of conservation, and BV work, in Sarteneja? (Is it important to you personally? Do you think it’s important to the community?)

Do you think these topics can give us a good idea of what the impacts of conservation and BV are in Sarteneja? Why or why not? Is there a better way?
For economic opportunities: Is it just the opportunities that are important, or is also important who the opportunities are going to? Do you think BV is having an effect on any of these topics? If yes, in what ways?