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An Examination of an Opportunity for Collaboration Among Stakeholders to Promote Conservation in Sea Turtle Tourism in Gilli Trawangan, Indonesia

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AN EXAMINATION OF AN OPPORTUNITY FOR COLLABORATION AMONG STAKEHOLDERS TO PROMOTE CONSERVATION IN SEA TURTLE TOURISM IN GILI TRAWANGAN, INDONESIA

By

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Abstract

All species of sea turtles are globally endangered, largely due to the impact of unsustainable tourism. Gili Trawangan, a small island, depends on marine tourism and has an abundant population of sea turtles. Stakeholder collaboration is often used to promote sustainable tourism development and sea turtle conservation. This study examined stakeholder collaboration to promote conservation in sea turtle tourism in small islands by exploring a case study in Gili Trawangan, Indonesia. The study was conducted in 2010. It applied qualitative research methods to expand the knowledge of collaboration in the development of sustainable tourism in small islands. Stakeholder analysis helped to reveal barriers to and influences on tourism development to help promote sea turtle conservation and protect the livelihoods of local communities. Key findings are that education, financial considerations, management structure, regulatory conflict, a disconnect to the island, and stakeholder conflict are factors that influenced stakeholder collaboration in Gili Trawangan.

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Chapter 1: Introduction

The concept of sustainability has a very long history. Many early thinkers, although lacking a concrete definition, expressed the idea of sustainability in their work. In 1694, Francois Quesnay, the founder of the French physiocratic school of political economy linked the health of nature to the health of society (Lumley and Armstrong, 2004). In 1798, Malthus expressed his concerns regarding the economics of population growth (Lumley and Armstrong, 2004, Barton, 2001). In the late 1890s and early 1900s, Gifford Pinchot, helped bring the concept of sustainable yields in forestry to North America after studying forestry in Germany (Barton, 2001). In the 1950s conservation was surfacing with help from important research including *Silent Spring* by Rachel Carson which was published in 1962 and focused on pesticide use and the environment. By 1973, a Norwegian Philosopher, Arne Naess devised the term Deep Ecology which essentially is a non-anthropocentric view that the living environment has a right to live and flourish, as do humans (Bragg, 1996).

In 1972, international conferences including the Stockholm Conference on Humans and the Environment helped conceptualise sustainable development (Hardy and Beeton, 2001). Also in 1972, the Club of Rome sponsored research entitled *The Limits to Growth* which stated that "technological development and societal increase simply cannot continue as they have for the last 200 or 300 years" (Mitcham, 1995, p314). It was revealed that exponential growth could not continue indefinitely and that there was a need to protect resources (Hardy and Beeton, 2001; Mitcham, 1995). The change in frameworks from what should not occur to what should occur can be seen as the beginning of the discussion on sustainable development. This was initiated primarily by two important reports: the World Conservation Strategy of 1980 prepared by the International Union for Conservation of Nature and Natural Resources (IUCN), and Our Common Future of 1987 by the United Nations World Commission on Environment and Development (WCED) (Mitcham, 1995; Union for Conservation of Nature and Natural Resources, 1980).

The World Conservation Strategy presents a manual on the general objectives of conservation. The strategy defined development as "the modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life" (Mitcham, 1995, p316). Conservation was defined as "the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations" (Mitcham, 1995, p316). Thus, as depicted by the definitions, both development and conservation operate in the same global context.

In 1987, *Our Common Future* linked global economic growth and development with the issue of environmental protection (Mitcham, 1995; WCED, 1987). Sustainable development was then defined by the WCED as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p43). Since this definition, many alternative definitions and interpretations of the concept have been proposed (Pope et al., 2004; Lumley and Armstrong, 2004). Sustainable development requires a balance between human demands to improve and maintain their own well being while also preserving the natural environment for future generations.

Sustainability requires the reproduction of species with a loss rate no greater than the historic rate of extinction. There are different contexts of sustainability, from weak to very strong. Weak sustainability assumes the

substitutability of human activity for natural capital while hard sustainability does not make this assumption (Becker, 1997). In strong sustainability, business cannot achieve sustainability, whereas in weak sustainability, profit and economic growth (a balance between economics and environmental issues) are acceptable (Gray and Bebbington, 1998). Weak sustainable development does not diminish between generations (Neumayer, 2003). Very strong sustainability (like Deep Ecology) implies that every component of the natural environment must be preserved (Neumayer, 2003). Very strong sustainability is seemingly unrealistic to strive toward considering the dependency that humans have on resources. Strong sustainability is the ideal goal behind this study; however, it is not realistic. Weak sustainability therefore is the reality for this study which strives to increase species protection as well as local livelihoods.

This study focuses on wildlife conservation in the tourism industry, with a particular focus on sea turtle tourism in Gili Trawangan, Indonesia. As such, the study is grounded in the concept of weak sustainability, recognizing the need to increase the protection of sea turtles in the current (and expanding) tourism industry for their continued use by the local residents for future generations.

1.1 The Tourism Industry

Since the 1960s, the tourism industry has continuously developed into a large global industry accounting for about 10 percent of global GDP, employment, and capital formation (Scheyvens and Momsen, 2008a; Davenport and Davenport, 2006; Theobald, 2005; McElroy, 2003; Hitchcock et al., 2008). International tourism is the fastest growing and most important tradable sector in the world economy (Shareef and McAleer, 2005; Self et al., 2010). Vision 2020 (The United Nations Tourism Organization's forecast study) expects the world tourism market to triple between 1995 and 2020 (Graci and Dodds, 2010; Frangialli, 1999). The industry allows for the global movement of individuals, and generates a substantial amount of income across the globe (Theobald, 2005; Shareef and McAleer, 2005).

The tourism industry is such a strong industry that it has continued to grow and develop through the global recession and economic crisis, and outbreaks of global infectious diseases including SARS and H1N1 (Ritchie et al., 2010; World Tourism Organization, 2010; Theobald, 2005). Travel and tourism employed 200 million people at the end of the 20th Century, and together travel and tourism are worth nearly US$3.5 trillion per annum (Davenport and Davenport, 2006; Self et al., 2010). As governments continue to recognize the importance of the tourism industry on their local economies, the industry will continue to increase (World Tourism Organization, 2010). The United Nations World Tourism Organization forecasts that international tourist arrivals will grow by four to five percent in 2011 from 935 million in 2010 (World Tourism Organization, 2011). Asia experienced the largest increase in tourism in 2010 reaching 204 million tourists from 181 million tourists in 2009 (World Tourism Organization, 2011). The tourism industry is incredibly important for the global economy and is anticipated to continue to expand into the future (Davenport and Davenport, 2006; Self et al., 2010; World Tourism Organization, 2010).

1.2 Sustainable Tourism Development

The tourism industry can vary from being very destructive to being environmentally, economically, and socially beneficial (Campling et al., 2006; Davenport and Davenport, 2006; De Albuquerque et al., 1992; Douglas et al., 1997). Due to the size of the industry, tourism was identified by the United Nations in 1992 at the United Nations

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Conference on Environment and Development in Rio de Janeiro as one of the main industries in need of achieving sustainable development (United Nations, 2009; Theobald 2005; Graci, 2008b).

Sustainable tourism development was initially considered to help satisfy a vision of conservation which recognized that resource conservation was necessary for future tourism use (Hardy et al., 2002). Butler (1993) defined sustainable development in the context of tourism as "tourism which is developed and maintained in an area (community, environment) in such a manner and such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits successful development and wellbeing of other activities and processes" (Butler, 1993, p29). He explicitly differentiated between sustainable tourism and sustainable tourism development stating that sustainable tourism could be defined simply as "tourism which is in a form which can maintain its viability in an area for an indefinite period of time" (Butler, 1993, p29). This study aims to encompass Butler's (1993) definition of sustainable tourism development which recognizes the importance of the local community's livelihood rather than simply the sustainability of tourism.

Sustainable tourism development aims to reduce the present and future negative impact from tourism. It strives to influence the following five factors, while ensuring that no one factor dominates: economic health, well being of the locals, unspoilt nature and protection of resources, healthy culture, and guest satisfaction (Muller 1994; Hardy and Beeton, 2001; Tosun, 2001).

1.3 Conservation Tourism

Tourism can either hinder or contribute to wildlife conservation (Campling et al., 2006; Davenport and Davenport, 2006; De Albuquerque et al., 1992; Douglas et al., 1997). There are various nature-based tourism attractions that, if managed appropriately, can be sustainable and contribute to the conservation and protection of many species and natural areas.

Conservation tourism is a type of tourism that began when conservation scientists developed research projects and recruited volunteers who provided labour and were responsible for their own funding (Brightsmith et al., 2008; Gray and Campbell, 2007). This type of tourism emerged in the 1980s and helped scientists to complete projects on smaller budgets with volunteers to complete basic environmental monitoring and biological studies which helped to develop and maintain conservation (Brightsmith et al., 2008). Conservation tourism allows for these basic practices to take place. In addition, it allows for findings to be shared with the community which is a key step in the progress of conservation biology (Brightsmith et al., 2008). Essentially, this practice allows tourism to attract financial capital for conservation, research, and development (Brightsmith et al., 2008).

Conservation tourism links volunteers to conservation projects (Cousins, 2006; Gray and Campbell, 2007). Traveling individuals donate their time to help projects around the world progress, and are normally responsible for their own basic travel and accommodation costs (Gray and Campbell, 2007; Wearing, 2001).

1.4 Wildlife Conservation Tourism

Wildlife conservation tourism is the focus of conservation tourism on some form of wildlife. Conservation tourism encompasses a protectionist view that endorses the use of wildlife tourism to promote conservation and preservation of wildlife (Kontogeorgopoulos, 2008). This occurs primarily through obtaining financial and human

support to carry out research and protection projects while providing education and a valued tourism experience (Kontogeorgopoulos, 2008; Tisdell and Wilson, 2002; Campbell and Smith, 2006).

There is a growing public demand for close encounters with wildlife, and also a potential for large revenues in this market (Gray and Campbell, 2007). The growing proportion of the urban population is increasing the demand for wildlife tourism (Reynolds and Braithwaite, 2001). Wildlife tourism in several countries has become the leading foreign exchange earner (Reynolds and Braithwaite, 2001). This has attracted a large number of organizations to focus on this type of tourism (Gray and Campbell, 2007). Through various organizations, many opportunities for this specific form of tourism exist around the globe: monkey rehabilitation and conservation in South Africa, monitoring leatherback turtle populations in Panama, monitoring sea turtle nesting in Costa Rica and Australia, and caring for lions in Johannesburg are just a few examples (Cousins, 2006; Tisdell and Wilson, 2002, Campbell and Smith, 2006; Gray and Campbell, 2007). Conservation tourism helps to build visitor knowledge and establish financial support for environmental initiatives. The tourism industry has a large potential to successfully develop sustainable forms of tourism around the world to protect threatened species (Balmford et al., 2009).

1.5 Sea Turtles: Globally Endangered

There are seven species of sea turtles, all of which are globally endangered: Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricate*), Olive Ridley (*Lepidochelys olivacea*), Kemp's Ridley (Lepidochelys kempii), Flatback (*Natator depressus*), Loggerhead (*Caretta caretta*), and the Leatherback (*Dermochelys coriacea*) (Allen, 2007; Tisdell and Wilson, 2002; Bermuda Turtle Project, 2004; Benson et al., 2007). Sea turtles are ancient, the earliest known fossils are approximately 150 million years old; however, in the past 100 years their populations have severely declined (Caribbean Conservation Corporation, 2010). Although sea turtles face natural threats, such as predators, they have become endangered principally due to anthropogenic activities, many of which are directly related to tourism (Allen, 2007; Tisdell and Wilson, 2002; Bermuda Turtle Project, 2004; Caribbean Conservation Corporation, 2010; Benson et al., 2007).

1.6 Collaboration

The identification and involvement of stakeholders is critical in developing successful projects and for resource management in tourism and planning (Grimble and Chan, 1995; Selin and Chavez, 1995; Gray, 1989; Booher and Innes, 2002; Healey, 1992). Collaboration is a process in which various stakeholders work together to explore their differences and search for solutions that may not be obtained independently (Gray, 1989). Selin and Chavez's (1995) model of a tourism partnership presents collaboration in tourism through a five phase process. It outlines key characteristics or factors that, if present, have been conducive to the development of collaborations. Multi- stakeholder collaboration is central to best management practices for sea turtle tourism. In various projects around the world, stakeholders have distinct roles and strengths that work together to promote sea turtle conservation through tourism.

1.7 Examining Stakeholder Collaboration to Promote Conservation through Sea Turtle Tourism in Gili Trawangan, Indonesia

Indonesia was selected as the location for this research due to its flourishing tourism industry and pristine marine environment which is a prime tourist attraction. Gili Trawangan's tourism industry is fairly young, but is

developing in an unplanned manner and at a rapid pace. Furthermore, the waters surrounding the island are known for large populations of sea turtles and the area is commonly referred to, and marketed as, the Sea Turtle Capital of the World (World Wildlife Fund Indonesia, 2004).

Despite expectations that the tourism industry in Gili Trawangan will continue to develop, and that this tourism largely depends on sea turtles, there have been no studies that focus specifically on linking sea turtles to tourism in this region. This study will explore an opportunity for stakeholder collaboration for sea turtle conservation and to ensure a strong future for the tourism industry and sea turtle populations.

1.8 Research Statement
An examination of an opportunity for collaboration among stakeholders to promote conservation in sea turtle tourism in Gili Trawangan, Indonesia

This study examines an opportunity for stakeholder collaboration in the sea turtle tourism industry. Stakeholder perspectives are explored to help describe, identify, and analyze opportunities and to determine barriers to collaboration for conservation in the sea turtle tourism industry in general, and specifically, in the context of Gili Trawangan, Indonesia. The findings of this research will contribute to addressing any missed opportunities for or barriers to stakeholder collaboration.

1.9 Research Objectives
This study explores three main research objectives:

1) Examine the literature and identify the stakeholders and any gaps in research on sea turtle tourism and conservation.
2) Identify key issues, obstacles, and opportunities for stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan.
3) Develop recommendations regarding stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan.

This research will provide information on the sea turtle tourism industry in Gili Trawangan in terms of stakeholder perceptions regarding the opportunity for multi-stakeholder collaboration to promote conservation. Barriers to and influences on developing this type of multi-stakeholder collaboration will be explored. The objectives are met through qualitative research methods. This research aims to develop recommendations for the stakeholders to effectively develop multi-stakeholder collaboration.

1.10 Research Approach
This study is exploratory, descriptive and prescriptive. It explores influences and barriers to stakeholder collaboration to promote conservation through sea turtle conservation. The study is descriptive because it describes the current setting of Gili Trawangan and the attempts at conservation, it is analytical because it analyses barriers and opportunities, and it is prescriptive in that it provides recommendations for stakeholders to help achieve collaboration and ultimately promote conservation on the island.

Research was collected using a multi-method approach that combined interviews with observations (Sommer and Sommer, 2002). Both primary and secondary research was used and qualitative research techniques were applied. Research collection primarily included a literature review, interviews and observations. Information was analysed through the use of methods that allow key themes and categories to emerge and thereby contribute to and build on existing knowledge.

1.11 Structure of Thesis

This chapter has broadly introduced the topic and purpose of the study, each topic will be further discussed in much more detail throughout the following chapters. Chapter 2 presents literature, theories and approaches related to sustainable tourism, sea turtle tourism and tourism management. The stakeholder approach, collaboration theory and the sustainable livelihoods approach are discussed in general and then in terms of sustainable tourism development. This will help provide a theoretical framework for this study and identify barriers to and influences on stakeholder collaboration. Best practices for sea turtle tourism are also examined in this chapter. Chapter 3 introduces the setting of Gili Trawangan and why it is an important area in which to study stakeholder collaboration. It provides a background for the area and discusses both sea turtle tourism and conservation. The stakeholder groups for this study are presented in this chapter. Chapter 4 presents the qualitative methods used for this study. Chapter 5 discusses the results of the study. Chapter 6 explains the key findings of the study. Chapter 7 presents recommendations that were developed from the key findings in the previous chapter. Chapter 8 presents the conclusions of the research.

Chapter 2: A Review of the Literature

The goal of this chapter is to investigate small island tourism development, the importance of sea turtles to ocean ecosystems and human livelihoods, the literature exploring management and importance of sea turtles in tourism, and theories and approaches to address sustainable tourism development for conservation of endangered species. This chapter begins by broadly discussing small islands and tourism, followed by a discussion on sustainable tourism development and the challenges that small islands face in sustainable tourism development. Next, sea turtle tourism and its importance to the livelihoods of communities especially in small islands is discussed. In order to contextualize management of sea turtles in tourism, three theories/approaches are examined as well as numerous best practice models and their importance to stakeholder collaboration. This chapter satisfies the first objective of the research. It examines literature and identifies gaps in research on the promotion of conservation through sea turtle tourism. This section also discusses important stakeholders.

2.1 Dependence of Small Islands on Tourism

The following sections will explore how and why small islands become dependent on the tourism industry, and the varied impact that tourism can have on these areas.

2.1.1 How and Why Small Islands Rely on the Tourism Industry

In terms of geographical tourist destinations, coastal tourism attracts the largest proportion of tourists each year, allowing many developing countries (particularly small islands) to gain significant income and other benefits from the trade (Davenport and Davenport, 2006; Scheyvens and Momsen, 2008b; Barrowclough, 2007; Self et al., 2010; Twinning-Ward and Butler, 2002).

One of the prime motivators for the development of a tourism industry is the opportunity to create employment and economic development (Graci and Dodds, 2010; Edgell, 1995; Fayos-Sola, 1996; Liu et al., 1987; Scheyvens and Momsen, 2008b; Twinning-Ward and Butler, 2002; Wilkinson, 1989). Tourism, if properly managed, can be beneficial to small islands through community development, community integration, and environmental conservation (Mitchell and Reid, 2001; Reynolds and Braithwaite, 2001). By focusing on the tourism industry, developing islands are able to earn foreign exchange, create jobs and access global markets to increase their standards of living (Barrowclough, 2007; Wilkinson, 1989). Other benefits of the tourism industry include improved health and educational opportunities (Wilkinson, 1989). That being said, there is concern that most of the benefits from tourism in small islands are short-term, while the possible negative impact from tourism is much more severe and long term (Wilkinson, 1989). The negative impact of tourism will be discussed in the following sections.

Due to their coastal attractions, islands are four times more dependent on tourism than other areas in the world (Davenport and Davenport, 2006). Small island tourism economies (SITE) are "developing countries with small populations, narrow production capacities and a need for consistent flows of foreign direct investment in order to facilitate economic growth" (Dodds et al., 2010, p208). The increased number of small islands that depend on the tourism industry may simply be due to a lack of viable alternatives in terms of economic development (De Albuquerque et al., 1992; Dodds et al., 2010; Scheyvens and Momsen, 2008b).

Small islands are attractive to tourists for various reasons. The physical independence from the mainland creates a type of solitude, isolation, and separateness that tourists often seek (Shareef and McAleer, 2005; Scheyvens

and Momsen, 2008a; Lockhart et al., 1993). Many tourists seek "difference": climate, physical environment, and culture (Lockhart et al., 1993). Small islands are often promoted to attract Western tourists who are drawn to places that exhibit their holiday aspirations for romance, adventure, and the sun-sand-sea "paradise on earth" (Scheyvens and Momsen, 2008a; Twining-Ward et al., 2002; Shareef and McAleer, 2005; Graci, 2008a; Hitchcock et al., 2008).

2.1.2 Negative Impact of Tourism on Small Islands Dependent on the Industry

Although tourism is very attractive for small islands to focus on, and is generally economically beneficial to islands, the consequences of developing tourism can be very detrimental. Tourism needs to be recognized as more than simply economic activity (Graci and Dodds, 2010).

Tourism development in islands can have a severe negative impact on the island's future especially related to the social, economic, and environmental impact (Twinning-Ward and Butler, 2002; Davenport and Davenport, 2006; Scheyvens and Momsen, 2008a; Twining-Ward et al., 2002; Graci and Dodds, 2010). Many pressures are placed on islands that depend on tourism, generally including: social, economic, ecologic and environmental impact (Scheyvens and Momsen, 2008a; Twining-Ward et al., 2002; Davenport and Davenport, 2006). More specifically, Graci and Dodds (2010, p7) created an extensive list based on past and current research outlining those factors that negatively affect tourism destinations (Graci and Dodds 2010, p7; Cohen, 1978; Haralambopolous and Pizam, 1996; Liu et al 1987; Scheyvens and Momsen, 2008b; McElroy, 2003; Twinning-Ward and Butler, 2002; Wilkinson, 1989).

- o Economic dependency of the host community on tourism
- o Conflict (e.g., drugs, vandalism, crime, begging, gambling, prostitution)
- o Pollution (sea, land, air, noise)
- o Leakage
- o Loss of habitat and resources from development and pollution
- o Biodiversity loss
- o Erosion
- o Decline of water resources (quality and quantity)
- o Loss of natural and architectural heritage from development
- o Loss of local cultural traditions due to changes in lifestyle (e.g., values, morals, sex roles) due to tourism
- o Displacement of the local population
- o Increased congestion and strains of infrastructure
- o Excessive use of natural areas
- o Coastline deterioration due to developments (buildings, facilities, roads)
- o Crowding (pressure on services)
- o Inflation
- o Foreign customs and expectations creating conflicts

The following sections discuss the impact of tourism on small islands in terms of social, economic, ecologic and environmental impact.

2.1.3 Social Impact

In a social context, local populations can be affected by tourism, just as much as they can impact tourism. For example, local populations on small islands can be greatly affected by dependence on the tourism industry. As the tourism industry develops in a destination, the local population may be disturbed by the large numbers of tourists, and competition for basic resources can increase, leading to friction between tourists and the local community (Haralambopolous and Pizam, 1996; De Albuquerque et al., 1992; Douglas, 1997; Scheyvens and Momsen, 2008b). In some islands, the fishing industry has been greatly disturbed due to competition for beach space for tourism, and

agriculture has suffered because the tourism industry demands large amounts of water (tourists are estimated to use almost three times as much water per person per day as locals), and water is frequently allocated to tourists at the expense of required irrigation for local crops (Scheyvens and Momsen, 2008b). The tourism industry can also have an impact on the cost of living for the local community (Dodds et al., 2010). E.g., in Gili Trawangan, Indonesia, the community is facing increased living costs likely as a result of the rapidly developing tourism industry (Dodds et al., 2010).

The social welfare of local communities can greatly impact tourism and thereby threaten economic and environmental sustainability (Campling et al., 2006). A study in Seychelles demonstrated that when local communities do not benefit socially from tourism, their negative behaviour and perceptions are recognized by tourists as political unrest which is ultimately reflected in a decline in tourist visits to these areas. The decline in tourism to the area then impacts the local economy and environment (Campling et al., 2006). In many small islands, poverty is quite visible in the local population (poor quality housing, lack of education and nutrition), and tourism development which brings the presence of wealthy tourists, causes an amplification of local perceptions of their own poverty which leads to social unrest including violence and suicide (Scheyvens and Momsen, 2008b).

2.1.4 Economic Impact

Economically, tourism development in small islands is not always beneficial to the island itself. "Leakage" can be described as income that is generated by tourism in one country, but actually lost to another country's economy (Graci and Dodds, 2010; Twinning-Ward and Butler, 2002). Due to the small size of island economies, control and benefits of tourism can end up in the hands of those who may not favour local interests (e.g., international investors), thereby resulting in strong competition on the island that small local entrepreneurs are not able to compete with (Scheyvens and Momsen, 2008b). Wages to foreign staff as well as imports of goods and services are other prime examples of leakage from small islands dependent on tourism (Graci and Dodds, 2010; Scheyvens and Momsen, 2008b; Twinning-Ward and Butler, 2002). The narrower the economy of a destination, the more the destination will rely on imports and the potential for leakage is elevated (Graci and Dodds, 2010).

2.1.5 Ecologic and Environmental Impact

Ecologically, the largest threat that tourism poses on small islands is the infrastructure associated with transport and accommodation necessary to support the industry (Davenport and Davenport, 2006; Shareef and McAleer, 2005). The infrastructure demands resources (e.g., water and fuel) which are often over-consumed or exhausted, and create large amounts of pollution which consequently contributes to substantial environmental degradation and dramatic social impact (Davenport and Davenport, 2006; Haralambopolous and Pizam, 1996; Graci and Dodds, 2010).

Environmentally, rapid development of the tourism industry in small islands to satisfy tourism demands often puts an excessive strain on the environment (Shareef and McAleer, 2005; Dodds et al., 2010; Haralambopolous and Pizam, 1996; Scheyvens and Momsen, 2008b). Beach erosion, loss of wetlands, reef damage, siltation of lagoons, and biodiversity loss all lead to a decline in the aesthetic appeal and value of the environment which consequently leads to a decline in international tourism and the local economy (Campling et al., 2006; Cohen 1978; Butler 1980; Scheyvens and Momsen, 2008b; Graci and Dodds, 2008; Afifi, 2000).

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Coral reefs serve as an important ecological structure and help support marine biodiversity (Afifi, 2000). Reefs are often destroyed because of runoff and discharge of untreated municipal and hotel waste as well as from pollution from tour operations like cruise ships and yachts (McElroy, 2003). Healthy coral attracts tourists; a decrease in healthy coral also therefore has a negative impact on tourism (World Bank, 2009). Island tourism has been linked to increases in plastic waste along shorelines and adjacent coastal and ocean areas (Gregory, 1999; Hitchcock et al., 2008). Increasing numbers of recreational visitors to small islands, and inadequate disposal practices leads to an accumulation of these materials in the ocean, consequently harming the marine environment (Gregory, 1999; Hitchcock et al., 2008). Wealthy tourists such as divers, who often are attracted to small island destinations, increase the demand for familiar and packaged food in plastic wrappers and water bottles rather than local food (Butler, 1980; Hitchcock et al., 2008; Douglas, 1997; De Albuquerque et al., 1992).

It is imperative that administrators of island destinations understand that tourism development goes beyond simple economic development to ensure that the industry in these areas is properly planned and managed to help ensure sustainable livelihoods into the future.

2.2 Sustainability and Tourism

Sustainable development was the result of the realization that the natural environment was not an unlimited resource base for economic growth (McElroy, 2003; Hardy et al., 2002). Sustainable development is the idea of merging economic growth and development with environmentalism (Hardy et al., 2002; Campling et al., 2006; Davenport and Davenport, 2006; De Albuquerque et al., 1992; Douglas et al., 1997). The idea originally incorporated social, cultural and ecological goals throughout development. The creation of the first national parks back in the 1800s was one of the first examples of the recognition that areas needed to be preserved for the use of future generations (Hardy et al., 2002).

In 1992, Agenda 21 was adopted at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janerio, Brazil (United Nations, 2009). It is "a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment" (United Nations, 2009, p1). Agenda 21 has since been strongly reaffirmed and continues to mark a point in time that a plan to achieve sustainable development was created.

2.2.1 Sustainable Tourism Development

Butler (1993) defined sustainable tourism development as "tourism which is developed and maintained in an area (community, environment) in such a manner and such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits successful development and wellbeing of other activities and processes" (Butler, 1993, p 29).

Community involvement and participation is a primary area of focus for sustainable tourism development because sustainable development is not only about environmental protection and economic development, but also about satisfying community needs (Hardy et al., 2002). Involving the community increases the likelihood that the community will support and be involved with proposed developments and not feel alienated. Community involvement also allows for developments to have a less negative impact on local communities, and contribute to the economy in a beneficial way (Hardy et al., 2002).

Sustainable development has become an accepted concept for tourism planning around the world (Dredge, 2006). It also has become a marketing device occasionally used to attract tourists to a destination without much of a true foundation in sustainability (Self et al., 2010). The tourism industry requires careful planning and management to achieve economic benefits that are sustainable while minimising environmental damage (Shareef and McAleer, 2005). It is also imperative that sustainable tourism addresses current tourism problems and practices and improves them instead of simply creating more tourism developments that suggest sustainability (Hardy et al., 2002).

The most inclusive and widely applied resort cycle model was proposed by Butler in 1980. Butler's original destination life cycle model showed how resort or tourism areas evolved through a life cycle. These areas tended to evolve from low tourist densities up to intense international tourist densities at which point they either declined, remained stable or rejuvenated. The way in which tourist destinations transform, according to Butler, tends to follow six stages from discovery to decline: exploration, involvement, development, consolidation, stagnation, and rejuvenation/decline (Butler, 1980; Douglas, 1997). Butler's (1980) model has since been widely applied to the tourism industry. Many studies have applied Butler's model to link the concepts of tourism intensity and ecological vulnerability (De Albuquerque et al., 1992).

Figure 2. 1: Butler's Life Cycle Destination Model
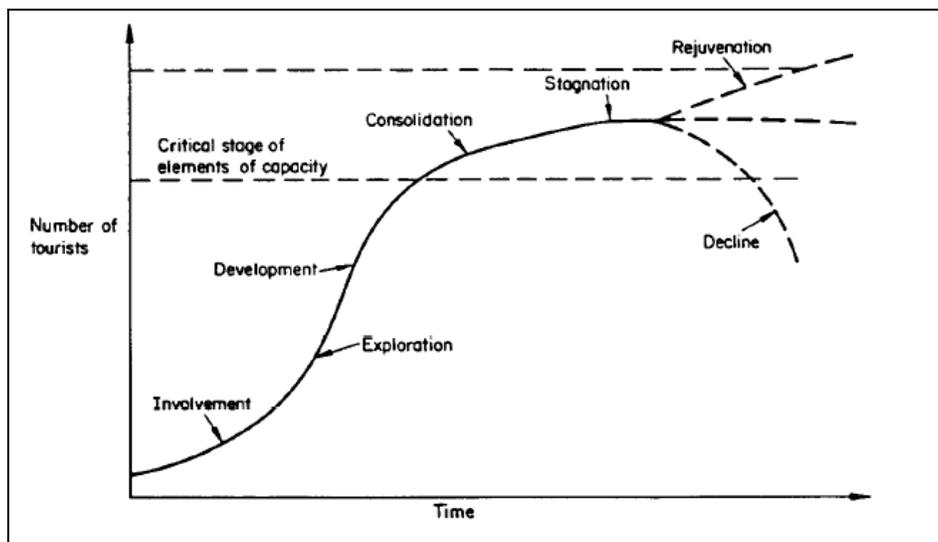
Source: Butler, 1980 as seen in Haywood 1986, p155

Once the number of tourists in a destination enters into the area labelled "critical stage of elements of capacity" in Figure 2.1, tourism has reached a level whereby (after stagnation) it will either rejuvenate or decline. The rejuvenation of a tourism destination is based on the development of new technologies or infrastructure improvements that will increase the "critical range of elements of capacity" thereby allowing more tourist arrivals without destroying all resources and causing decline (Douglas, 1997). The decline of a tourism destination, in this model, occurs when tourism development happens to an extent that the resources that originally drew tourists to the destination no longer exist, For example, biodiversity and a pristine environment (Douglas, 1997).

If tourism is managed and developed sustainably, tourism has the potential to effectively and continuously support small islands in a socially, environmentally and economically acceptable way (Shareef and McAleer, 2005). However, if managed unsustainably, the destination is likely to evolve along Butler's destination life cycle curve and end in decline, with exhausted environmental resources, social struggles, and a declining economy (Butler, 1980; Campling et al., 2006; Davenport and Davenport, 2006; Douglas, 1997; De Albuquerque et al., 1992).

2.2.2 Challenges to Sustainable Tourism Development in Islands

There are many challenges that islands face when it comes to sustainable tourism development (Scheyvens and Momsen, 2008b; Briguglio et al 1996; Burns and Howard, 2003; Graci and Dodds, 2010; Twinning-Ward and Butler, 2002; Dodds and Graci 2009). The list below draws from numerous resources and presents some important challenges to sustainable development in these areas. The barriers are further discussed after the list (Scheyvens and Momsen, 2008b; Briguglio et al 1996; Burns and Howard, 2003; Graci and Dodds, 2010; Twinning-Ward and Butler, 2002; Dodds and Graci 2009).

- o Limited by physical and natural resources
- o Short term thinking and lack of planning
- o Foreign ownership
- o Lack of awareness of sustainability
- o Lack of measurement
- o Stakeholder conflict
- o Lack of skills and funding
- o Corruption and bureaucracy
- o Lack of infrastructure
- o Climate change
- o Limiting visitor numbers

Island destinations are limited by physical and natural resources like fresh water, and small islands are often vulnerable to natural disasters like torrential rains and landslides because of their topography and location (Twinning-Ward and Butler, 2002; Scheyvens and Momsen, 2008b; Graci and Dodds, 2010). In addition, islands often depend on the export of key resources or foreign aid, the potential impact of which has been previously discussed (Scheyvens and Momsen, 2008b; Twinning-Ward and Butler, 2002; Graci and Dodds, 2010).

In addition, small islands frequently lack adequate infrastructure. They are limited by a variety of factors including space which is a requirement of many forms of infrastructure, like sewage treatment as well as short term vision and appropriate finances (Scheyvens and Momsen, 2008b; Graci and Dodds, 2010). The lack of infrastructure can result in the destruction of natural resources that help draw tourism to the area, like corals and the marine environment. Short term thinking and lack of planning is another barrier to sustainable tourism development in islands (Briguglio et al 1996; Graci and Dodds, 2010). Island tourism destinations often encompass a short term vision focused mainly on economic gain and therefore do not invest adequately in the infrastructure, skills, knowledge and stakeholder consultation required to meet sustainable development goals (Graci and Dodds, 2010). Construction in small islands often results in the destruction and erosion of important beaches as a result of short term planning (Briguglio et al 1996). In addition, islands often lack trained staff for maintenance and are frequently located long distances from equipment manufacturers (Scheyvens and Momsen, 2008b; Graci and Dodds, 2010). Islands often face an overall lack of skills and funding (Graci and Dodds, 2010). As a result, a lack of space, skills, and funding results in inadequate or often lacking infrastructure which can be environmentally detrimental.

The lack of planning in tourism development may reflect the level of government and community awareness of sustainability. Many governments and stakeholders do not see the need to manage the impact of tourism, or they are not able to accurately identify the effects of tourism. In addition, many island government terms are short and therefore do not consider long term sustainability but focus more on short term economic gain (Graci and Dodds, 2010).

The lack of awareness of sustainability by tourists can also influence tourism development in islands. Businesses are frequently driven by tourist demands (Graci and Dodds, 2010). Tourist accommodations are often segregated from local communities and therefore tourists are not exposed to the perils that the island may face. Tourism providers do not want to pressure tourists to restrict their behaviours and do not educate tourists effectively as they a fear losing customers (Graci and Dodds, 2010). If tourists were more aware of the need for sustainability, their demands might change and as a result force business to change.

Many island destinations do not monitor important aspects of the tourism industry such as tourist arrivals, use of resources, and local-host perspectives. This lack of monitoring leads to a difficulty in accurately planning and managing the industry (Twinning-Ward and Butler, 2002; Graci and Dodds, 2010). This information is useful in keeping track of a destination's performance as well as the effectiveness of regulations and guidelines (Twinning-Ward and Butler, 2002).

Foreign ownership in small island destinations causes leakage and leads to the dependency of islands on foreign investments (Twinning-Ward and Butler, 2002; Scheyvens and Momsen, 2008b; Graci and Dodds, 2010). The dependency on foreign investment also tends to decrease the local community's role in how development should occur (Twinning-Ward and Butler, 2002; Scheyvens and Momsen, 2008b; Graci and Dodds, 2010). As such, beachside development and environmental degradation are frequently a result of foreign investment.

Stakeholder conflicts are the source of many barriers in sustainable island tourism development (Burns and Howard, 2003; Scheyvens and Momsen, 2008b; Graci and Dodds, 2010). Decisions made by one stakeholder (e.g., Government) greatly affect the livelihoods of all other stakeholders in small communities. Conflicting values and interests of stakeholder groups are often in existence. For example, locals may wish to limit the impact of tourism while local governments may lean more towards economic interests (Graci and Dodds, 2010). Stakeholders often disagree on whether to limit visitor numbers to help control the use of resources (Burns and Howard, 2003).

A lack of awareness of sustainability in general is a large challenge in sustainable tourism development in island destinations. The concept of sustainability is vague and difficult to grasp in a practical sense (Graci and Dodds, 2010). In addition, many islands are in less developed countries that often lack education, leading to decreased awareness regarding sustainability. To further compound the problem, most people, especially communities in poor islands, are more concerned with meeting their own basic needs each day than they are about future generations (Graci and Dodds, 2010).

Corruption and bureaucracy also pose challenges to sustainable tourism development in islands. Long and complex administrative systems slow down policy and regulation development (Graci and Dodds, 2010). Corruption and relationship-building have an impact on development. Government officials accepting bribes to allow developers to build along unauthorized areas (like beaches) make decisions that not only degrade the environment, but also leave

individuals and businesses that support sustainable development to feel powerless. As a result of the corruption, any attempt to disagree with the corrupted system and development may compromise the residents own livelihoods (Graci and Dodds, 2010).

Lastly, climate change is also a challenge to sustainable tourism development in islands. Sea level rise has caused a loss of land, potable water has become salinated, and costs have increased as a result of more extreme weather (Graci and Dodds, 2010; Dodds and Graci 2009).

Although perhaps not all challenges identified above are faced by every island destination, it is important to understand possible challenges when examining tourism development in an island setting. The challenges help contextualize the study.

2.2.3 Challenges to Wildlife Conservation Tourism Development

Wildlife tourism is a relatively new industry (Higgenbottom and Scott, 2008). As such, research relating to increasing the sustainability of this specific industry is also young. Key challenges to sustainable development in wildlife tourism overlap significantly with the challenges discussed above regarding sustainable development in islands. Key challenges to sustainable wildlife conservation tourism include: a lack of resources, the impact of tourism on wildlife habitats and behaviour, a lack of knowledge/education, a lack of policy and regulation, low levels of communication and stakeholder conflict (Higgenbottom and Scott, 2008; Burns and Howard, 2003).

Poor infrastructure and financial constraints are prevalent in the wildlife tourism industry. Many wildlife parks consist of poor infrastructure largely due to financial constraints which may be linked to poor marketing and lack of visitors (Higgenbottom and Scott, 2008). There is a risk of negatively affecting wildlife habitats and behaviour if wildlife tourism is managed unsustainably. A lack of communication and coordination between stakeholders in this industry leads to lack of funding and also a lack of effective management (Burns and Howard, 2003; Higgenbottom and Scott, 2008). A general lack of knowledge, policy, regulation, and stakeholder conflict have all been previously discussed and have also been found to be relevant specifically to wildlife conservation tourism development.

2.3 Sea Turtle Tourism

The following sections explore wildlife tourism with a specific focus on sea turtles. They discuss the various forms of sea turtle tourism, the importance of sea turtle tourism especially to local communities in small developing islands, and the potential negative impact of tourism on sea turtles. This section narrows the previous discussions on sustainability, tourism and small islands into a focus on sea turtle tourism in small islands which is the focus of this study.

2.3.1 An Introduction to Sea Turtle Biology and Ecology

Sea turtles are air breathing reptiles that (depending on their stage in the lifecycle) can be found in the deep ocean, shallow coastal areas or reefs, as well as on beaches (Caribbean Conservation Corporation, 2010). Juvenile sea turtles are often located in the deep ocean currents while adults can be seen in the shallower ocean near coral reefs. Female sea turtles nest on sandy beaches around the world. Sea turtles are truly global species that are capable of migrating thousands of miles between their feeding grounds and nesting beaches (Caribbean Conservation

Corporation, 2010; Bermuda Turtle Project, 2003; World Wildlife Fund; n.d; World Wildlife Fund, 2004). One loggerhead turtle was monitored with satellite telemetry for 368 days and travelled more than 11, 500km across the Pacific Ocean from California to Japan (Nichols et al., 2000).

Female sea turtles return to the beach where they were born to nest, and lay clutches of 50-120 eggs every two or three years, and may nest up to ten times in one season (Gyuris, 1994; Caribbean Conservation Corporation, 2010). Incubation is about 60 days, after which the hatchlings emerge at night from the nest in the beach and orient themselves towards the brightest horizon (which at night is the ocean). It can take between 15 and 50 years to reach reproductive maturity (World Wildlife Fund, 2010; Gyuris, 1994). There is no way to determine the age of sea turtles from their physical appearance; however, many studies suggest that sea turtles can survive for upwards of 100 years (Caribbean Conservation Corporation, 2010; World Wildlife Fund, 2010).

The diet each of the seven species is unique, and each species plays a different role in the ocean ecosystem (see section 2.5.1). Green sea turtles are particularly important in sea turtle tourism, as they are the most visually appealing. Green sea turtles are mainly carnivorous from hatching until juvenile size (Jellyfish are a main component of the diet of a juvenile Green sea turtle). They then progressively shift to an herbivorous diet. Green sea turtles have finely serrated jaws adapted for a vegetarian diet of sea grasses and algae. As adults, these are the only herbivorous sea turtles (Caribbean Conservation Corporation, 2010).

2.3.2 Forms of Sea Turtle Tourism

Sea turtle tourism is a tourist activity that focuses on sea turtles as an attraction. Sea turtle tourism began in the late 1980s and the World Wildlife Fund estimated that 175 thousand people participated in sea turtle tourism annually in more than 90 sites in over 40 countries (World Wildlife Fund, 2004). There is a wide array of sea turtle tourism methods ranging from aquariums, watching females lay eggs on a beach, SCUBA diving, snorkelling, or releasing hatchlings at night (Caribbean Conservation Corporation, 2010; Campbell et al., 2006; Choi and Eckert, 2009). Therefore, sea turtle tourism can range from a short duration tourist activity (e.g., visiting an aquarium) to a long duration activity (e.g., volunteering at a sea turtle conservation project). Sea turtle tourism can be an activity that an individual participates in while on vacation, but also may extend as far as a motivation and prime purpose of travel (Gray and Campbell, 2007; Ellis, 2003). Sea turtle conservation tourism is particularly popular among wildlife tourists (Ellis, 2003).

While aquariums display sea turtles in a captive setting, snorkelling and SCUBA diving are common activities offered in island destinations. These activities allow tourists to view sea turtles in their natural environment from the water. In addition, boating adventures (e.g., glass-bottom boats, catamarans, and speed boats) are activities which allow tourists to view sea turtles in their natural environment from the safety of a boat (Choi and Eckert, 2009). Lastly, sea turtles can be seen at two different stages of their life cycle on nesting beaches: tourists can view female sea turtles nesting, or hatchlings emerging from their nest. All are forms of sea turtle tourism that can have a negative impact on the conservation of sea turtles if managed improperly; however, if best management practices are used, turtle populations can be protected while tourism thrives (Choi and Eckert, 2009). Choi and Eckert (2009) studied best practices for sea turtle tourism which are explored alongside models in Section 2.5.

2.3.3 Importance of Sea Turtle Tourism

The only study in the field of global economic worth of sea turtles was conducted by Troëng and Drews (2003) in partnership with the World Wildlife Fund (World Wildlife Fund, 2004). The report demonstrated that declining sea turtle populations can negatively impact jobs, tourism and coastal economies (Troëng and Drews, 2004). They explained that the negative impact from declining sea turtle populations is more severe in coastal economies especially in developing countries, 67% of which have sea turtles (Troëng and Drews, 2004).

Sea turtles are economically worth more to local communities when they are alive and used as a tourist attraction rather than when they are dead (Troëng and Drews, 2004). Many local communities around the world use sea turtles as a product to sell. For example, turtle shells, eggs, meat, or bone are used to produce various products like jewellery or leather. The study revealed that at nine case study sites, the gross revenue from using dead sea turtles to sell ranged from US$158 to US$1,701,328 per case study site per year with an average of US$581,815 per year (Troëng and Drews, 2004). At nine study sites where live sea turtles were a prime tourist attraction, the gross revenue was between "US$41,147 to US$6,714,483 per year with an average of US$1,659,250 per year" (Troëng and Drews, 2004, p19). Sea turtle tourism in Tortuguero National Park (Costa Rica) brought in around US$6.7 million annually (World Wildlife Fund, 2004; Troëng and Drews, 2004). As such, this report depicted that from an economic standpoint, local communities, on average, benefitted more from using sea turtles as a live tourist attraction rather than as a product (Troëng and Drews, 2004). The report stresses that developers, politicians and community leaders should begin to view marine turtles as an important asset to generate revenue as well as jobs (Troëng and Drews, 2004).

All species of sea turtles are at risk of global extinction and face numerous threats to their livelihood. Consequently, many communities, especially coastal communities in developing countries, may be impacted by the declining sea turtle populations because of their dependence on this species for their livelihood (Troëng and Drews, 2004). In locations where sea turtle tourism is being properly managed, sea turtle populations are rising, or remaining stable and therefore not destroying community livelihoods (World Wildlife Fund, 2004). Therefore, sea turtle tourism is beneficial to local communities as well as to sea turtle populations. It is important that current practices related to sea turtles are studied, understood, and modified to help conserve all species to avoid extinction and its associated consequences.

2.3.4 Negative Impact of Tourism Development on Sea turtles

Tourism can contribute significantly to declining sea turtle populations around the globe. Due to their global migratory habits, sea turtle management in one area of the world will impact global sea turtle populations (Choi and Eckert, 2009). Humans primarily come into contact with sea turtles in three different geographical locations: in shallow coastal areas, on the open sea, and at nesting beaches. The following sections outline the negative impact that tourism can have on sea turtles.

2.3.4.1 Jewellery, Ornaments and Souvenirs

Sea turtle shells are used as jewellery and souvenirs in various countries around the world. Turtle leather is often sold to tourists as a souvenir (Morgan, 2007; Allen, 2007; Choi and Eckert, 2009). In addition, turtle shells

(mainly Hawksbill shells) have traditionally been crafted to make jewellery like rings, or ornaments like clocks (Choi and Eckert, 2009).

2.3.4.2 Pollution

As previously discussed, runoff and discharge of untreated municipal and hotel waste, and pollution from various tour operations leads to the destruction of important coral reefs (McElroy, 2003; White et al., 2000). Coral reefs are further destroyed by anchoring of boats, trampling and coral collecting by tourists (McElroy, 2003; White et al., 2000). In addition, overfishing and blast fishing are causes of coral reef destruction (White et al., 2000).

The diet of each species of sea turtle is unique, but all are commonly impacted by anthropogenic activities and pollution (Caribbean Conservation Corporation, 2010). All species are greatly affected by plastics at sea (Bourne 1985; Carr, 1987; Gregory, 1999; Bugoni et al., 2001; Choi and Eckert, 2009). Pollution, including plastic pollution is a negative impact from tourism development especially in small islands (Graci and Dodds, 2010). All species of sea turtles are especially prone to consuming plastics and other types of floating waste (Carr, 1987, Bugoni et al., 2001; Choi and Eckert, 2009; Wabnitz and Nichols, 2010). "Last year I counted 76 plastic bags in the ocean in just one minute while standing in the bow of our sea turtle research boat at sea in Indonesia," said Dr. Wallace J. Nichols (Nelson, 2011, p1).

The Green sea turtle is particularly affected by pollution due to its dietary norms; plastic bags floating at sea are often mistaken as jellyfish which can ultimately result in the death of the sea turtle (Bermuda Turtle Project, 2004; Caribbean Conservation Corporation, 2010; Choi and Eckert, 2009). Ingested plastics have the potential to block digestive tracts, damage stomach linings, or decrease the perceived need to feed (Laist, 1987; Wabnitz and Nichols, 2010). Plastics at sea are so commonly ingested by sea turtles that their stomachs can contain mostly plastic.

As previously discussed, tourism can cause large amounts of uncontrolled pollution such as oil and other waste. Oil in water causes damage to sea turtles, including direct physical harm, and destruction of their food supply and their habitats (Bugoni et al., 2001; Choi and Eckert, 2009). Oil can directly hinder a turtle's ability to breathe, and it also impacts their blood composition (Choi and Eckert, 2009). Oil can also destroy sea grass which is the prime source of nutrition for adult Green sea turtles (Bugoni et al., 2001; Choi and Eckert, 2009).

Lastly, waste on the beach can cause physical damage to nesting turtles as well as hatchlings. The waste can entangle and prevent them from reaching the sea (Choi and Eckert, 2009). The smell of garbage on the beach attracts more predators to the beach and increases the risk of predation for turtle eggs (Choi and Eckert, 2009).

2.3.4.3 Beachside Development

A prime contributor to sea turtle declines is due to beachside development (hotels, restaurants, bars) and beach destruction. A significant impact of beachside development is that hatchlings become disoriented by lighting, and on their emergence from the nest, they are drawn towards artificial light (e.g., hotel or bar lighting) instead of the ocean, This causes disorientation leading to exhaustion, dehydration, and an increased risk of predation (Caribbean Conservation Corporation, 2010, World Wildlife Fund, 2010; Choi and Eckert, 2009). When faced with disorienting lights, many hatchlings may never make it into the ocean to develop. Residential and commercial developments may disturb nesting turtles, and curious people may collect or unknowingly disturb eggs along the beach (Caribbean Conservation Corporation, 2010, World Wildlife Fund, 2010; Choi and Eckert, 2009).

Physical objects from tourism such as chairs, umbrellas, and boats that are left on the beach at night create obstructions to nesting turtles and prevent them from finding suitable nesting habitat and may later hamper the hatchlings ability to find their way to the sea (Choi and Eckert, 2009).

2.3.4.4 Improperly Managed Sea Turtle Tourism Attractions

Improperly managed tourism can have a large impact on sea turtle health, as tour operations often come into direct contact with sea turtles. Boat propellers from speedboats strike turtles and damage their shells. This type of wound is often fatal. In addition, sea turtles become entangled in fishing gear, ropes, and debris (Benson et al., 2007; Choi and Eckert, 2009).

Overcrowding sea turtles during tourist activities (like snorkelling or SCUBA diving) causes great stress to sea turtles, as they are air breathing reptiles. In such overcrowded space, they are often unable to reach the surface for air (Caribbean Conservation Corporation, 2010; Bermuda Turtle Project, 2003; World Wildlife Fund; n.d; World Wildlife Fund, 2004).

Tour operators often use fish meat as a means of attracting sea turtles in coastal waters to tour boats for sightings. Green sea turtles are often considered to be the most visually appealing species of sea turtles, and therefore are often sought after for tourism operations. With multiple tour operators seeking sea turtle sightings throughout the day, sea turtles begin to rely on the carnivorous diet, and consequently become unhealthy and obese in the process.

2.5 The Importance and Uses of Sea Turtles

2.5.1 The Importance of Sea Turtles in Ocean Ecosystems

Beyond sea turtles' importance directly to tourism, all species play an important role in the ocean ecosystem. Their importance beyond tourism is an additional factor as to why it is so crucial that these species are protected. If sea turtles are not protected, there will be gaps in their vital roles in the ecosystem which could lead to further negative consequences at an ecosystem level. If populations continue to decline, not only will tourism suffer, but so too will marine environments in general, and tourism at large. The following section discusses the importance of various species of sea turtles in the ocean ecosystem.

The green sea turtle is an herbivore that helps to maintain healthy seagrass beds from overgrowth. Overgrown seagrass cause obstructions to currents and shade, leading to the growth of lime and mold (Choi and Eckert, 2009; Wilson et al., n.d). Healthy seagrass beds are important breeding and development grounds for other marine species (Wilson et al., n.d ; Sea Turtle Conservancy, 2011; Choi and Eckert, 2009). As such, a reduction in the number of sea turtles will negatively impact seagrass beds, and cause a decline in other marine species that depend on seagrass beds (Sea Turtle Conservancy, 2011; Wilson et al., n.d).

Hawksbill sea turtles remove and rip sponges from reefs allowing coral to colonize and other marine species to be exposed to the sponge's interior as food. Due to chemical and physical defences of sponges, most fish and marine mammals are not able pass through the sponge's exterior to eat them (Wilson et al., n.d). A decline in this species will impact coral development and food sources for other marine species (Choi and Eckert, 2009; Wilson et al., n.d).

Loggerhead sea turtles have a powerful jaw to help break up hard shells which increases disintegration rates on the sea floor. Loggerheads also forage in the sea floor. Their trails in the sand affect compaction, aeration and nutrient distribution in the benthic environment (Wilson et al., n.d).

Leatherback sea turtles are the primary jellyfish predator, especially of the Portuguese Man O'War (Choi and Eckert, 2009). This sea turtle species helps control jellyfish populations which feed on fish eggs and larvae (Wilson et al., n.d; Choi and Eckert, 2009.). A decline in this species will allow jellyfish populations to increase and subsequently impact fish populations.

All species of sea turtles provide food for fish and shrimp from barnacles or epibionts and algae (Wilson et al., n.d; WWF, 2011). On land, eggs in nesting beaches impact vegetation and the stability of sandy shorelines by providing nutrients and helping vegetation grow (Choi and Eckert, 2009; Wilson et al., n.d; WWF, 2011; Sea Turtle Conservancy, 2011).

The above mentioned roles filled by sea turtles are critical to the survival and natural cycle of the ocean and on-land ecosystems. The declining populations may jeopardise their critical roles in nature leading not only to ecological devastation, but economic losses as well because no other species have the same role as sea turtles do in the ocean ecosystem. The loss of sea turtles in the ocean ecosystem will impact corals, sea grasses and various marine populations which will consequently impact communities that rely on these marine resources for their livelihood.

2.5.2 Natural Threats to Sea Turtle Existence

Besides tourism, sea turtles face numerous natural threats. Only one in one thousand hatchlings are expected to survive to adulthood due to the many obstacles that they encounter (Caribbean Conservation Corporation, 2010). Many terrestrial animals including racoons, crabs, foxes, birds and dogs are known to locate and eat turtle eggs contributing to massive declines in sea turtle populations (Caribbean Conservation Corporation, 2010; World Wildlife Fund, 2010; Wilson et al., n.d.; Choi and Eckert, 2009). The hatchlings that emerge from eggs then become a target of seabirds during the day and herons at night (Choi and Eckert, 2009; Wilson et al., n.d.). Once in the water, hatchlings are prey to seabirds and reef fish, like catfish. Up to 97% of green sea turtles are eaten within one hour of entering the ocean (Gyuris, 1994). If sea turtles survive into adulthood, their risk of predation decreases. Their main predators are killer whales and tiger sharks (Wilson et al., n.d.).

2.5.3 Traditional and Cultural Uses of Sea Turtles

In addition to natural threats, sea turtles are very important for certain cultures around the world. The collection of turtle eggs along beaches is a prime contributor to the declining turtle populations (Pritchard, 1980; Choi and Eckert, 2009). Many indigenous societies around the world rely on turtle meat, fat and eggs as subsistence food and a good source of protein especially for young children (Benson et al., 2007; Morgan, 2007; Allen, 2007; Aguirre et al., 2006; World Wildlife Fund, 2010). In addition, turtle eggs are occasionally used as treatment for stomach pains and in some areas of the world they are considered an aphrodisiac (Aguirre et al., 2006). Some cultures use sea turtles as a sacrifice in traditional ceremonies, while other cultures (largely in Polynesia) have a spiritual bond with sea turtles, and consider them sacred (Morgan, 2007; Allen, 2007). When turtles are found by some cultures, they believe this is a sign that their ancestors have made food available for their community (Morgan, 2007; Allen, 2007).

2.5.4 Summary

Natural and cultural threats to sea turtle existence are alone significant. Sea turtle tourism has introduced numerous additional threats to sea turtle existence and as a result, their populations face critically low numbers. The tourism industry is a large threat to sea turtle populations when improperly managed.

Sea turtles face several natural obstacles to their survival, and tourism developers must be aware of the potential detrimental effects that their industry has on this species in order to plan and develop accordingly.

2.6 Best Management Practice Models for Sea Turtle Tourism

A best management practice for sea turtle tourism is a tourist activity that involves satisfying a tourist's interest in sea turtles while contributing to sea turtle protection rather than destruction. A best practice contributes to sea turtle conservation. In terms of this project, a best management practice is one that is recognized by experts as combining sea turtle conservation with tourism, but also could be of relevance in terms of management in Gili Trawangan. Drawing on the previously discussed concept of conservation, which recognized that resource conservation was necessary for future use (Hardy et al., 2002), sea turtle conservation aims to protect sea turtles to help ensure that their populations remain in existence in the future. Depending on how sea turtle tourism is developed and managed, it can either be a positive contribution to conservation, or be a source of destruction (Tisdell and Wilson, 2002). Through the implementation of education, financial support and research, tourism can be a successful method of conservation (Higginbottom and Scott, 2008). This section provides examples of best management practices regarding sea turtle tourism from around the world. The examples are drawn from several geographical regions and are important to explore because they are all managed differently depending on the location, and may be good models for Gili Trawangan to adopt. All best management practices clearly rely on unique collaborative efforts of stakeholders including tourists, environmental NGOs, conservation groups and the local community.

Choi and Eckert (2009) created a comprehensive manual to help guide and encourage stakeholders to develop and implement science-based sea turtle conservation programs. They recognized sea turtles as a tourism product and emphasized the positive role that the tourism sector can play in helping to protect sea turtle populations and their habitats (Choi and Eckert, 2009). The manual helps describe some important roles that various stakeholders may fill. Some of the key best practices to sea turtle tourism in general are presented below.

The tourism sector can play a vital role in preventing the extinction of sea turtles (Caribbean Conservation Corporation, 2010; Choi and Eckert, 2009). Beachfront hotels and businesses need to take measures to help protect nesting sea turtles, their eggs, and hatchlings. Hotels can provide guests with educational packages including emergency numbers (sea turtle experts, veterinarians, and police) and sea turtle hatchling and nesting months. Also, this can be a good opportunity to provide information on local conservation projects. Tourists can be vital contributors to these projects through volunteering their labour, donating skills and services, or equipment, and funding (Choi and Eckert, 2009). Partnerships play a large role in the success of best management practices for sea turtle tourism and conservation. Experience has shown that bringing stakeholders and experts together to form an advisory group helped to increase transparency and success in projects (Choi and Eckert, 2009).

Construction setbacks for buffer zones in critical nesting areas, beachfront lighting, beach maintenance, beach vegetation, boats and personal water craft are all incredibly important in sea turtle conservation (Choi and

Eckert, 2009). As sea turtles rely on wide sandy beaches to nest, beachside development and a lack of maintenance (e.g., removing beach chairs at night) disturbs these vital areas and results in the female being unable to nest (Caribbean Conservation Corporation, 2010). Beach lighting (from hotels or homes) must be minimised during the evening and night to avoid hatchling disorientation. Boats often travel at high speeds through shallow sea turtle feeding areas and cause unnecessary and often fatal collision wounds (Caribbean Conservation Corporation, 2010). Guest and local community education and participation are powerful in helping to promote and support sea turtle conservation. Informed guests are more likely to be responsive and accepting of proposed conservation actions than less informed guests (Choi and Eckert, 2009).

Turtle watch tourism programs should be developed in close partnership with either local sea turtle conservation groups or a community based tour group. The community tour guides, already active in general tour guiding, can be trained to conduct turtle watches. These programs should include a strong educational component (Choi and Eckert, 2009).

Sea turtles are also often seen by tourists who participate in snorkelling or SCUBA diving. Tourists should not chase or harass the turtles as this may easily disrupt their natural rhythms of feeding and resting. In addition, if divers get too close to sea turtles, they may make it difficult for them to come to the surface to breathe. Standards of appropriate behaviour are not well developed for at-sea encounters. However, it is recommended that snorkelers stay four to five meters away from sea turtles at all times (Choi and Eckert, 2009).

2.6.1 Bermuda Museum, Aquarium and Zoo, and SeaWorld, Florida Sea Turtle Aquariums

When managed appropriately, aquariums or pools can play a vital role in sea turtle health while acting as a sustainable tourist attraction (Ballantyne et al., 2007). The Bermuda Aquarium, Museum, and Zoo as well as the Florida SeaWorld sea turtle aquariums are both great examples of best management practices for sea turtle tourism.

The Caribbean Conservation Corporation is a not-for-profit membership organization based out of Gainesville, Florida (Caribbean Conservation Corporation, 2004; Campbell et al., 2006). The focus of the organization is the conservation of sea turtles through the completion of research, training, education and environmental protection (Caribbean Conservation Corporation, 2004). The Caribbean Conservation Corporation is responsible for a variety of successful projects that combine sea turtle tourism with science, health and sustainability around the Caribbean (Campbell et al., 2006; Bermuda Turtle Project, 2004; Caribbean Conservation Corporation, 2004). The Bermuda Turtle Project is a collaborative effort among the Caribbean Conservation Corporation, the Bermuda Aquarium and Zoo, locals, and tourists.

The waters surrounding Bermuda are recognized as a sea turtle nursery for the Caribbean region (Bermuda Turtle Project, 2004). Immature Green sea turtles are known to inhabit these waters in absence of adults. The juvenile development stage of the Green sea turtles remains fairly unknown. Therefore, the unique abundance of juvenile sea turtles allows the Bermuda Turtle Project to focus on filling in these crucial gaps in knowledge (Bermuda Turtle Project, 2004). In addition to the unique scientific studies, the Bermuda Turtle Project is also affiliated with the Bermuda Aquarium, Museum and Zoo which prides itself on the sea turtle exhibit (Bermuda Aquarium, Museum and Zoo, n.d.; Bermuda Turtle Project, 2004). The Bermuda Aquarium Museum and Zoo is also associated with the

Caribbean Conservation Corporation, and together they have established a sustainable sea turtle tourist attraction (Bermuda Aquarium, Museum and Zoo, n.d; Caribbean Conservation Corporation, 2004).

When injured sea turtles are reported to the Bermuda Turtle Project, the Bermuda Aquarium, Museum and Zoo acquires them and works toward their rehabilitation (Bermuda Turtle Project, 2004). During the rehabilitation stage, the sea turtles are placed in an aquarium open to the public for viewing and education. They are fed primarily lettuce along with small amounts of fish. When sea turtles are spotted nesting, eggs are collected, and placed in the zoo, and released on a beach after hatching. If any hatchlings get washed back or do not approach the ocean, they are brought back to the aquarium and cared for in their pools. Volunteers from the local population donate their time to clean the hatchlings and mature turtles on a monthly basis. Whenever possible, once the injured sea turtle is healed, it is replaced in its natural environment (Bermuda Turtle Project, 2004).

The Marine Turtle Program in Florida manages sea turtle tourism in a parallel manner to Bermuda. The Marine Turtle Program rescues injured sea turtles and places them in a SeaWorld exhibit for rehabilitation (SeaWorld, n.d.). SeaWorld Parks rehabilitate on average 45-50 rescued sea turtles each year. After rehabilitation is complete and the sea turtles are healthy, they are released. More than 800 sea turtles have been rehabilitated through this program. In addition to a display, tourists are provided with information regarding sea turtle biology, diet, and habitat. The display educates the public on how human activities may impact sea turtle survival. The tourists are informed that the sea turtles on display are present for rehabilitation and will be released once they are healthy (SeaWorld, n.d.).

Both projects gain financial support through collecting visitor entry fees. These examples demonstrate that captive sea turtle tourism can be managed sustainably and provide a level of education to tourists. The waters surrounding Florida and Bermuda are natural for sea turtles. Therefore the aquarium displays are not unsustainably attracting local tourists to view exotic species which is often the case of captive tourism. Both of these projects offer an experience and education regarding a local and endangered species. Therefore, the Bermuda Turtle Project and the Florida Marine Turtle Program act as examples of best management practices for captive sea turtle tourism.

2.6.2 Mon Repos, Australia Turtle Watching Program

Mon Repos, in southern Queensland, Australia is home to an abundance of sea turtles and therefore attracts a large number of tourists throughout the year (Australian Government, 2007; Wilson and Tisdell, 2003). The sea turtle tourist attraction is based on turtle watching, and is managed in a way that provides education and contributes to the conservation of sea turtles. As such, it is considered a best management practice for sea turtle tourism (Tisdell and Wilson, 2002; Wilson and Tisdell, 2002).

The tourist attraction in Mon Repos allows tourists to view sea turtles during their nesting phase in their natural environment. The beaches of Australia are prime nesting grounds for Loggerhead turtles (Tisdell and Wilson, 2002). Queensland Parks and Wildlife Services (QPWS) manages the turtle watching tourist attraction at Mon Repos. The activity takes place at night under the supervision of QPWS staff (Tisdell and Wilson, 2002). Tourists pay an entry fee (between 2-4AUS) which grants them access to an educational information-display center, allows them to participate in a presentation, and to be part of the tour to the beach to view turtles nesting (if they appear). In addition

to turtles nesting, tourists may be able to view hatchlings emerge from their nest (Tisdell and Wilson, 2002). There is no guarantee for the tourists that either, or any, of the above will be seen, as wildlife is not always predictable.

During the tour, guides explain the nesting process to the tourists while the sea turtle is nesting on the beach. In addition to educating the tourists, the tour guides collect scientific information on the nesting turtles and hatchlings (Tisdell and Wilson, 2002). Thus, tourism, education, and scientific research are all carried out in one process. The Mon Repos sea turtle tourism program has been in existence for more than fifteen years, providing the area with economic benefits, while contributing to the success of conserving an endangered species through key scientific research, funding from entrance fees, and participant education (Tisdell and Wilson, 2002).

2.6.3 The Turtles of Tortuguero Participant Program, Costa Rica

Costa Rica is known for its abundance of sea turtles, and has been able to attract international tourists to participate in a successful sustainable conservation tourism program in Tortuguero (Campbell et al., 2006). The Turtles of Tortuguero Participant Program is a form of conservation tourism managed collaboratively with the Caribbean Conservation Corporation and an American non-governmental organization that has headquarters in Costa Rica (Campbell et al., 2006; Caribbean Conservation Corporation, 2010). The program allows individuals to volunteer and be involved in sea turtle research activities. Many volunteers also provide financial support to help keep the program running. Sea turtle tourism in Tortuguero National Park brings in an estimated US$6.7 million annually (World Wildlife Fund, 2004).

There are two separate types of volunteers in the Turtles of Tortuguero Participant Program: Research Assistants, and Participant Researchers. Researcher Assistants are hired by the Caribbean Conservation Corporation and are provided with room and board along with in-country transportation costs in exchange for their research work, but are responsible for all other costs like airfare, communication, and sightseeing costs (Campbell et al., 2006). Both types of researchers are volunteers, as neither receive compensation, but donate their time abroad to help conservation progress. The Research Assistants usually are involved with the program for either the entire season, or half; therefore they are usually involved with the program for several months. Participant Researchers stay for a much shorter duration: one to three weeks on average. Their responsibility is to help the Research Assistants carry out fieldwork. Participant Researchers are volunteers who pay a weekly fee to cover their room and board, transportation to and from the capital city, and some other tourist sightseeing activities. Participants are also responsible for all other costs including airfare or other expenses (Campbell et al., 2006; Caribbean Conservation Corporation, 2010).

The researchers are responsible for fieldwork including tagging, measuring, counting eggs, and marking nests. This project allows tourists to participate hands-on and experience the sea turtles for themselves (Campbell et al., 2006). They are not only given the opportunity to watch, but to participate and contribute to scientific research to help conservation of the sea turtles. The environment that the participants are exposed to is completely natural. The fieldwork is often during unpleasant hours and rough weather: turtle nesting, and hatchling emergence usually occurs at night (Campbell et al., 2006). In addition, Green sea turtle nesting (which attracts the most tourists) occurs during the rainy season; therefore, volunteers are often exposed to very wet weather during night time hours (Caribbean Conservation Corporation, 2010).

The Tortuguero Turtle Project in Cost Rica provides tourists with a valued experience while contributing to sea turtle conservation. The program provides education and experience to tourists, while gaining critical scientific information to support and develop conservation of the sea turtles in the area. The weekly fees required of the Participant Researchers contribute to maintaining the program and its facilities for continued success (Campbell et al., 2006). The project is therefore a successful best management practice for sea turtle tourism in Costa Rica.

2.6.4 Summary of Best Management Practices for Sea Turtle Tourism

There are various best management practices related to sea turtle tourism around the world. The discussed best management practices were selected because of their potential in Gili Trawangan. That being said, all best management sea turtle tourism programs cater to the exact environment and tourist demands in which they are to be implemented in order to be successful. Therefore, these best practices may act as a strong base for managing sea turtle conservation and tourism in this study. This section demonstrated that all of these best practices rely on a certain amount of stakeholder collaboration in order to be successful. Each technique draws on the strengths of each stakeholder group. Together the stakeholders work as partners to achieve common goals. Bermuda, Florida, Australia and Costa Rica all are excellent examples of best management practices in sea turtle tourism, but are managed in different ways. Each practice demonstrates a strong tourism component alongside an important conservation base. Each attraction aims to protect and contribute to the population of sea turtles in their local area while satisfying tourists interest. All programs are unique and offer a wide range of techniques that could be applied to other locations around the world.

2.7 Theories and Approaches to Address Sustainable Tourism Development for Conservation of Endangered Species

There are numerous factors influencing why tourism may not be developed in a sustainable manner which promotes wildlife conservation and a strong tourism industry. These factors can be examined and identified using various theories and approaches found in tourism management literature. Stakeholder analysis, collaboration theory, and sustainable livelihoods approach all provide unique insight into important factors for sustainable tourism development (Gray, 1985; Grimble and Chan, 1995; Hardy and Beeton, 2001; Higgenbottom and Scott, 2008; Yuksel et al., 1999).

Stakeholder analysis explains that all stakeholder groups' perceptions must be sought out to understand interests and values, as well as to help overcome potential challenges to ultimately achieve successful sustainable development in environmental management (Grimble and Chan, 1995; Hardy and Beeton, 2001). Gray's (1985) collaboration theory suggests that stakeholder partnerships progress through a three phase framework, and also that various factors (such as leadership, values, and motivations) influence stakeholders' abilities and desires to work successfully in collaboration. Lastly, sustainable livelihoods approach is a concept that focuses on local communities' participation and interests, and strives to ensure that their livelihoods are understood and protected for the future (IFAD, n.d.; Graci and Dodds, 2010; Brocklesby and Fisher, 2003).

These theories all provide insight into how sustainable tourism can be developed and managed in a successful manner. Identifying and understanding all stakeholder groups and their perceptions is an integral part of

each theory or approach in this study. Varying stakeholder values and interests play a large role in sustainable tourism development.

2.7.1 Stakeholder Analysis Approach

Stakeholder analysis can be defined as "an approach and procedure for gaining an understanding of a system by means of identifying the key actors or stakeholders in the system and assessing their respective interests in that system" (Grimble and Chan 1995, p114). A stakeholder in social science is someone who is affected by, or can affect a project, and has a moral right to influence its outcome (Freeman, 1984; Bourne and Walker, 2005). Therefore, individuals, communities, social groups, or institutions can be stakeholders (Grimble and Chan, 1995).

Stakeholder analysis approach aims to improve projects by considering all stakeholders' interests and challenges, and better address the impact of projects through comprehensively breaking down and analysing perceptions of the various stakeholders (Grimble and Chan. 1995; Hardy and Beeton, 2001). This holistic approach allows for potentially converging stakeholder perceptions on the importance and priority of the project to become apparent (Hardy and Beeton, 2001). Its purpose is to improve the effectiveness of developing policies and projects by considering stakeholder perspectives and thereby outlining potential challenges and conflicts (Grimble and Chan, 1995). Stakeholder analysis is an approach that is especially crucial in environmental management where the resource is public and commonly used. Different stakeholders exist and therefore there are various distinct interests and agendas regarding the resource or project (Grimble and Chan. 1995; Hardy and Beeton, 2001).

Grimble and Chan (1995) set out principles of stakeholder analysis and initiated the process of developing procedures and methods to conduct stakeholder analysis in natural resource management in developing countries. They stated that their field experience pointed in particular to the usefulness of informal semi-structured interviews (using simple checklists of key topics), both with individuals representing one stakeholder group, or with a number of representatives from different stakeholder groups. Oral case histories have also helped researchers understand changes over time and the dynamics of the system being studied (Grimble and Chan, 1995). Grimble and Chan's (1995) research found three methods of identifying stakeholders when using stakeholder analysis approach for natural resource management in developing countries. Their findings are explored in section 2.6.1.4: Stakeholder Identification.

When using stakeholder analysis approach for natural resource management in developing countries, Grimble and Chan (1995) found that there were important subject areas to gather information from stakeholders, and they included: their use of the resource; their views on other stakeholders' use of the resource; the position, interest; influence, interrelations, networks; and other characteristics of stakeholders (past, present, future) (Grimble and Chan, 1995; Brugha, 2000). Indirect investigation or observation also helped provide information examining if stakeholders' interests were reflected in their behaviours (Grimble and Chan, 1995).

The overall objective of using this approach is to improve the understanding of environmental management in order to design better managed projects (Grimble and Chan, 1995; Hardy and Beeton, 2001).

2.7.1.1 Origins of Stakeholder Analysis

Stakeholder identification and analysis applied to the field of environmental and natural resource management began in the early 1990s; however, according to Preston (1990), stakeholder theories for management

date back to the early 1930s. General Electric executives identified four major stakeholder groups in 1932: shareholders, employees, customers and the general public (Preston, 1990; Brugha et al., 2000). The Stanford Research Institute developed the first definition of a stakeholder in 1963 as "groups upon which an organization depends for continued survival" (Hardy and Beeton, 2001, p174). Later, in 1989, Freeman expanded the definition to "any group or individual who can affect or is affected by the achievement of an organization's objectives" (Freeman 1984, p 46).

Freeman (1984) played a large role in the development of stakeholder theory. Based on his definition, both a group or an individual can qualify as a stakeholder as long as they have a legitimate interest in the firm's activities and have either the power to influence the performance of the firm or have a stake in the firm's performance (Freeman, 1984). Stakeholder theory is based on the general idea that corporations have stakeholders whose demands they aim to meet (Donaldson and Preston, 1995). This theory provides an explanation of the influence of stakeholders and resulting management implications (Donaldson and Preston, 1995; Graci, 2008b). Figure 2.2 depicts Freeman's (1984) definition of a stakeholder in a large firm.

Figure 2. 2: Freeman's "Hub and Spoke" Model: Stakeholders in a Firm
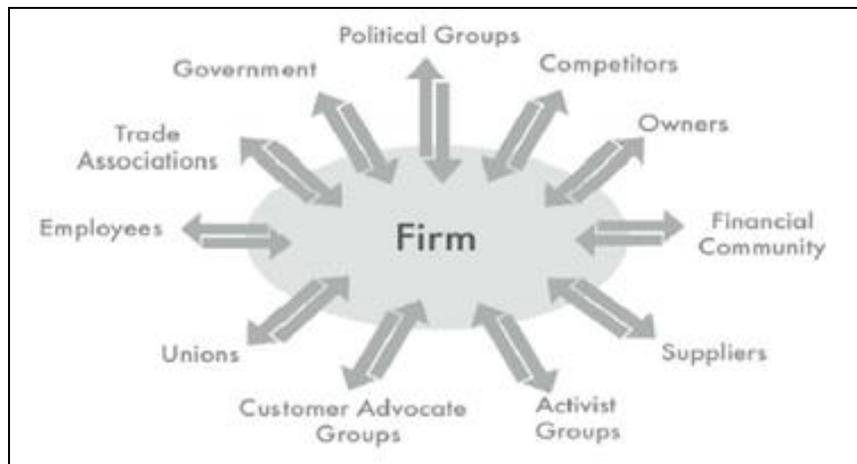
Source: Freeman 1984, p 55 as found in Graci, 2008b, p.19

Stakeholder approach materialized from stakeholder theory because existing theories were mainly applicable to businesses and corporations. There was a need to apply these types of management theories to a more complex social system, like industries, in order to help assess and design projects and policies (Grimble and Chan, 1995). Historically, stakeholders were studied primarily in relation to corporations and how they were managed. Stakeholder approach recognizes that the interests and influence of stakeholders need to be considered in evaluating barriers to and opportunities in successful management or implementation of change (Brugha et al., 2000; Grimble and Chan, 1995).

Like all approaches, stakeholder analysis has its limitations. Stakeholder overlap is a reality in most studies; however, stakeholder approach treats stakeholder groups as distinct entities (Grimble and Chan. 1995; Hardy and Beeton, 2001). Stakeholder groups often overlap. For example, a local resident can also be a tour operator (Hardy

and Beeton, 2001). Because stakeholder analysis treats stakeholder groups as distinct, a greater flexibility and awareness of overlaps would be required in circumstances where overlaps occur (Hardy and Beeton, 2001).

Stakeholder analysis is grounded in Freeman's (1984) stakeholder theory and has been applied to the tourism industry to help increase successful and ethical management and contribute to sustainable tourism development.

2.7.1.2 Importance of Stakeholder Analysis in Sustainable Tourism Development

Stakeholder analysis allows for the recognition and actual understanding of a broad range of stakeholder perceptions, objectives, interests and circumstances in order to identify how different stakeholders may benefit or lose from a project. The approach allows for possible barriers in project development to be unveiled, and therefore allow project managers to potentially overcome possible problems and conflicts with the project (Grimble and Chan, 1995).

Maintainable tourism relies on assumptions of perceptions, whereas sustainable tourism seeks to actually understand stakeholder perceptions (Hardy and Beeton, 2001). A main difference that separates sustainable tourism from maintainable tourism involves the understanding of stakeholder perceptions. Understanding stakeholder perceptions is imperative in facilitating and developing successful sustainable tourism (Hardy and Beeton, 2001). Sustainable tourism includes the idea that subjective needs should be met; tourism is a holistic matter that thereby requires complex management. Varying interests such as environmental, financial, community and tourist satisfaction need to be addressed (Hardy and Beeton, 2001). The identification of stakeholders and the analysis of their perceptions allows for better understanding of different perspectives and stakeholder interests at different levels of a project (Hardy and Beeton, 2001).

2.7.1.3 Applications of Stakeholder Analysis in Sustainable Tourism Development

Stakeholder analysis, as mentioned above, has evolved into a comprehensive research field addressing important relations from multiple sides. Stakeholder analysis has been applied to tourism, mostly as a planning management tool, but also as a form of ethical business management (Sautter and Leisen, 1999; Hardy and Beeton, 2001).

Hardy and Beeton (2001) studied stakeholder perceptions of sustainable tourism in the Daintree Region of North Queensland in Australia. They used stakeholder analysis to identify stakeholders who were defined as those directly involved or affected by the management of the region. They identified four stakeholder groups: local people, tourist operators, tourists and regulators. Hardy and Beeton (2001, p168) state that "without a full understanding of how tourism is perceived by stakeholders who live in, use and manage the resource to which management is to be applied, there is a risk that sustainable tourism will not occur."

The purpose of Hardy and Beeton's (2001) study was to determine if tourism in the Daintree region was being managed in a sustainable way that was effective and relevant to stakeholders in the area. By applying stakeholder analysis approach, they identified stakeholder groups and obtained stakeholder perceptions and determined that differences between primary concerns about tourism in the area were evident between stakeholder groups (Hardy and Beeton, 2001). This study revealed management problems in the area, as the management strategies for the region did not reflect all stakeholder perceptions. Their study demonstrated that the management of tourism in the study area could result in a decline in tourist numbers and consequently a loss of income to the local community. Hardy and Beeton (2001) illustrated the importance of understanding stakeholder perceptions in

facilitating sustainable tourism. Stakeholder identification and involvement is imperative in achieving stakeholder collaboration in tourism (Hardy and Beeton, 2001).

Stakeholder analysis was applied in the tourism industry in Pamukkale, Turkey to study if stakeholder perceptions were being reflected in tourism management and planning in the region (Yuksel et al., 1999). The study revealed that certain respondents were dissatisfied with recent tourism planning and management. Many stakeholder groups from this study expressed that tourism plans seemed imposed from the central government and that communication between the local government and the central was poor (Yuksel et al., 1999). Another important finding was that the local community expressed that there was inadequate public consultation in tourism planning along the way in Pamukkale; therefore, they felt their opinions were not being considered in the management of the industry (Yuksel et al., 1999). This study demonstrated that not all stakeholder groups were satisfied with how tourism was being managed in the area, and provided specific areas in which there seemed to be concern: public consultation and a lack of communication between governing bodies.

Higginbottom and Scott (2008) explained that incorporating all stakeholders and having them work together to establish rules and procedures in wildlife tourism was imperative for successful management. Stakeholder analysis can help encourage communication between stakeholder groups to understand diverse perspectives and also to work together towards common goals (Higgenbottom and Scott, 2008). Higgenbottom and Scott (2008) linked wildlife tourism with management in Australia. They discussed wildlife tourism as a new tourism sector that is capable of developing strategically and in collaboration with multiple stakeholders. They explained that "strategic planning of wildlife tourism requires the support of a diversity of stakeholders" (Higgenbottom and Scott, 2008, p113). Stakeholder analysis in tourism is proactive and holistic (Higgenbottom and Scott, 2008; Hardy and Beeton, 2001). Higgenbottom and Scott's (2008) study concluded that because wildlife tourism is a fairly young industry, the identification and inclusion of stakeholders in the management of the industry may help to satisfy all stakeholders and their goals (Higgenbottom and Scott, 2008). When the perceptions, perceptions, values and goals of any stakeholder are not identified, considered and addressed, conservation management is likely to be unsuccessful.

2.7.1.4 Stakeholder Identification

A prime aspect of stakeholder analysis is stakeholder identification (Bourne and Walker, 2005; Grimble and Chan, 1995; Briner et al., 1996; Green and Elfrers, 1999; Higginbottom and Scott, 2008). Stakeholders can be a substantial asset to project management, with the ability to provide unique insight, information and support in regard to a project (Bourne and Walker, 2005).

Sautter and Leisen (1999) conducted important research on stakeholder management in tourism. They explained that stakeholder collaboration was key to sustainable tourism development (Sautter and Leisen, 1999). Sautter and Leisen's (1999) study focused on stakeholder theory and its application to tourism planning; however, they identified and explored stakeholders in the tourism industry, and presented important information that is relevant to research on stakeholder identification in general. Sautter and Leisen (1999) created a tourism stakeholder map (Figure 2.3) adapted from Freeman's (1984, p55) stakeholder map which was presented previously.

Figure 2. 3: Tourism Stakeholder Map
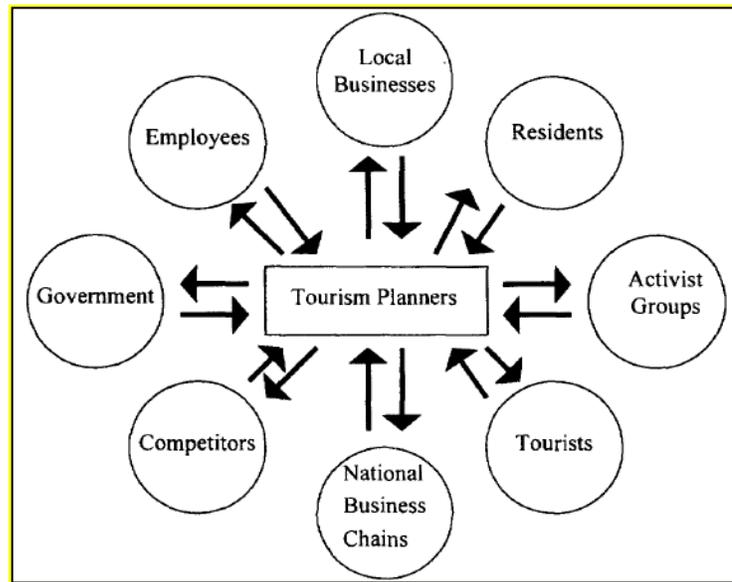
A stakeholder group in tourism is a group of individual stakeholders who share commonalities relating to the management of the tourism industry. Sautter and Leisen (1999) stated that for a tourism initiative, these eight stakeholder groups may be relevant and should be considered. Their study determined that in tourism, planners must proactively seek to include stakeholders, and that a strong multi-stakeholder collaborative alliance will gain significant returns in the long run. Sautter and Leisen (1999) built on Freeman's seminal work on stakeholders and linked it to the tourism industry. Their research on stakeholders in the tourism industry will help identify stakeholder groups for this study.

There were a few approaches that Grimble and Chan (1995) brought up in their previously discussed study to help identify stakeholder groups in natural resource management. The approaches are summarised in Table 2.1.

Table 2. 1: Approaches developed by Gimble and Chan (1995) to Identify Stakeholder Groups in stakeholder Analysis in Natural Resource Management

Approach	Explanation
Reputational Approach	Ask knowledgeable or important individuals to identify groups they believe have a stake in the issue in question. e.g., village headman or elder
Focal Group Approach	Identify a stakeholder group that plays a central role in the system in question. Other stakeholders are uncovered by identifying individuals, groups and institutions that have important relationships with the focal group.
Demographic Approach	Can be used to complement other approaches. Provides a general, systematic way of ensuring all common social groups are considered e.g., gender, age, occupation, religion etc.

The reputational approach suggests that by asking a knowledgeable (in the area of the project or study) or an important individual in the location of study to identify groups who may influence or may be influenced by a certain topic that this may help ensure that all stakeholder groups are included and are accurate (Grimble and Chan, 1995). The focal group approach relies on identifying one main stakeholder group in the study, and through obtaining information (Grimble and Chan 1995 suggested interviews) other stakeholder groups may be revealed (Grimble and Chan, 1995). The demographic approach can be used to support other stakeholder group identification methods (Grimble and Chan, 1995). This approach relies on demographic stratification to form initial stakeholder groups to ensure that stakeholder groups are included, these groupings may then change (Grimble and Chan, 1995).

Based on Hardy and Beeton's (2001, p177) definition of a stakeholder ("people who were directly involved or affected by the management of the region") they were able to identify four stakeholder groups for their study: local people, tourist operators, tourists, and regulators. "Regulators were defined as those who contributed to the management of the area. Local people were those who lived in the study area. Operators were defined as those operating businesses in the study area and tourists were those people who visited the area from more than 40km away" (Hardy and Beeton, 2001, p178). After identifying stakeholders based on their definition, they used observations to ensure their stakeholder list was inclusive.

Higgenbottom and Scott (2008) identified a wide range of stakeholders involved in wildlife tourism. The most important stakeholders include tourists, operators, government conservation agencies, and government tourism agencies (Higgenbottom and Scott, 2008).

Choi and Eckert (2009) discussed the roles of various stakeholders for best managing sea turtle tourism (see section 2.5 for more on their work) and they stated that the following are stakeholders that must be involved in the management of sea turtle tourism: government, coastal residents and communities, NGOs, beach users, SCUBA dive operators.

The above mentioned studies have all identified important stakeholders to consider for this study. Table 2.2 is a list that compiles and groups together the stakeholders identified in all the studies previously mentioned to help create a clear understanding of important stakeholder groups to consider for this study. It is important to note that Freeman's (1984) work is the root of all the studies discussed in this section. The studies discussed in this section have a narrowed focus on stakeholders in natural resource management, tourism, or specifically wildlife tourism and this is why they are imperative to explore for this study.

Table 2. 2: Compiled and Organized Stakeholder Groups Identified as Important to Consider for Sustainable Wildlife and Sea Turtle Tourism

Compiled Stakeholder Group	Stakeholder Group Identified by the Study
Government/Regulators: including government conservation agencies and government tourism agencies	Sautter and Leisen, 1999; Choi and Eckert, 2009; Hardy and Beeton, 2001; Higgenbottom and Scott, 2008
Local Community: residents, coastal residents and community, beach users	Sautter and Leisen, 1999; Choi and Eckert, 2009; Hardy and Beeton, 2001
NGOs	Choi and Eckert, 2009
Tourists: beach users	Sautter and Leisen, 1999; Choi and Eckert, 2009; Hardy and Beeton, 2001; Higgenbottom and Scott, 2008
Operators: local businesses, beach users, SCUBA dive operators, tourist operators	Sautter and Leisen, 1999; Choi and Eckert, 2009; Hardy and Beeton, 2001; Higgenbottom and Scott, 2008
Employees	Sautter and Leisen, 1999
Activist Groups	Sautter and Leisen, 1999
Competitors	Sautter and Leisen, 1999
National Business Chains	Sautter and Leisen, 1999

Table 2.2 demonstrates that the stakeholders identified in the important articles discussed above fit generally into nine categories. Some groups were identified by multiple studies. Overall, each identified group is important to consider in the identification of stakeholders for this study.

2.7.1.5 Summary

In order for conservation management for wildlife tourism to be successful, all stakeholder groups must be studied, considered, and addressed. Choi and Eckert (2009) stated the importance of involving all stakeholders in sea turtle tourism best management practices. Several studies demonstrated the importance of identifying and addressing the needs of all stakeholders in a project to help define the best method to satisfy stakeholder demands and manage a project (Hardy and Beeton, 2001; Higginbottom and Scott, 2008; Grimble and Chan, 1995). The identification of stakeholders and their concerns, goals and values must be included in and throughout the management process (Grimble and Chan, 1995; Hardy and Beeton, 2001).

2.7.2 Collaboration Theory

Collaboration was defined by Gray (1989, p5) as "a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible." Therefore, a collaborative alliance is an inter-organizational effort to address problems too intricate to be effectively resolved by independent action (Gray and Wood, 1991).

Collaboration is a process that assumes that there is a set of actors that can be identified through dialogue among and consultation with participants (Jonker and Nijhof, 2006). It is the evolving process of alliances working together in a problem domain (De Araujo and Bramwell, 2002; Gray, 1989; Jamal and Stronza, 2009; Plummer at al., 2006). The process has the potential to allow organizations to pool their knowledge, share expertise, capital, and other resources (Plummer et al., 2006). The groups working together may therefore gain a competitive advantage. In addition, policies, implementation and enforcement as a result of collaboration may be more accepted by individuals and organizations who were involved in creating them (De Araujo and Bramwell, 2002). It has also been argued that this practice is part of a moral obligation to involve affected parties throughout any decision making processes (De Araujo and Bramwell, 2002).

Gray's rationale for focusing on developing collaboration theory was due to limitations in existing theories. Wood and Gray stated: "A key limitation of existing theory... is that most perspectives are oriented toward the individual focal organization – such as a firm, an agency, or a government department - rather than toward an interorganizational problem domain" (Wood and Gray, 1991, p140).

Gray (1985) outlined a three phase framework (Figure 2.4) for the collaboration process: 1) Problem Setting, 2) Direction Setting, 3) Implementation (Gray, 1985, p916).

Figure 2. 4: Gray's (1985) Three Phase Framework of Collaboration

Facilitative Conditions at Each Phase of Collaboration		
Problem-setting	Direction-setting	Structuring
Recognition of interdependence	Coincidence of values	High degree of ongoing interdependence
Identification of a requisite number of stakeholders	Dispersion of power among stakeholders	External mandates
Perceptions of legitimacy among stakeholders		Redistribution of power
Legitimate/skilled convenor		Influencing the contextual environment
Positive beliefs about outcomes		
Shared access power		

Source: Gray (1985, p918)

Phase one requires that multiple stakeholders agree on what the problem is, and that the problem is important enough to work with others to find a solution. In addition, this phase must ensure that all stakeholders are included to fully understand the process, especially key stakeholders. If key stakeholders are excluded from this phase, Gray argued that this could cause technical or political problems during the implementation phase (Gray, 1989; Jamal and Stronza, 2009; De Araujo and Bramwell, 2002).

The second phase focuses on establishing rules, groups, and agreements between the stakeholders. In addition, phase two requires the exploration of options through discussing the interests and values of each group, then

finally reaching an agreement to proceed with a particular course of action (Jamal and Stronza, 2009; De Araujo and Bramwell, 2002). The last phase is implementation and requires support and structuring including monitoring for compliance (Jamal and Stronza, 2009; De Araujo and Bramwell, 2002).

In addition, Gray (1989) outlined five key characteristics of inter-organizational collaboration:

o stakeholders are interdependent
o solutions emerge by dealing constructively with differences
o joint ownership of decisions is involved
o stakeholders assume collective responsibility for ongoing direction of the domain
o collaboration is an emergent process by which organizations collectively deal with growing environmental complexity

Although collaboration theory has many potential advantages, there are some important difficulties and obstacles involved. Collaboration involves frequent and regular meetings involving discussion and decision making with various individuals or organizations (De Araujo and Bramwell, 2002). This type of demanding schedule can be problematic for many who wish to be involved. It is possible that financial and time constraints can be difficult to overcome to participate in regular meetings (De Araujo and Bramwell, 2002). Therefore, certain groups may dislike or refuse to work together thereby hindering the process (Jamal and Stronza, 2009; De Araujo and Bramwell, 2002).

2.7.2.1 Collaboration in Planning

Collaboration is an important process for planners. Planning has moved away from rationality-based planning towards recognizing that there is not one best plan of action, but many (Brooks, 2002; Healey, 1992). Planning is increasingly connecting ideas among people (Brooks, 2002). Collaborative planning and communication is what allows the planning process to become practical (Booher and Innes, 2002; Healey, 1992). Without the involvement of stakeholders, plans and policies do not reflect stakeholder perceptions and plans are often not successful and are prone to stakeholder opposition (Booher and Innes, 2002).

Habermas's (1989) work on communicative rationality argued that there should be a shift away from individualised reasoning, and a shift toward reasoning that is developed through inter-subjective communication (Healey, 1992). Habermas created a set of ideal conditions for communication which, if followed accurately, can result in "emancipator knowledge" (knowledge that transcends that developed individually or within their individual society) (Innes and Booher, 1999). The ideal conditions that Habermas (1989) presented are rarely achieved in practice. The criteria rely on all stakeholders being equally informed, listened to, in equal power (in dialogue or decision making), and sincere (they must not lie). They also all must be able to fully understand what other stakeholders present (as information or arguments), and all stakeholders must have acceptable reasons for any claims they may make (Habermas, 1989; Innes and Booher, 1999). The conditions for communicative rationality are not realistic, but since being presented have acted as a guide to other research and also as a goal for collaboration in planning.

Communicative action is essential when individuals live together but live differently (Healey, 1992). Habermas's (1989) work discussed four social action types during organizational activity: instrumental, strategic, communicative and discursive (Lyytinene and Hirschheim, 1988). Although consensual positions cannot always be met, the principle of collaboration, including arguments and debates, remains a legitimate guide (Healey, 1992).

Forester (1994) built on Habermas's (1989) work and presented four characteristics of good communication in planning: comprehensibility, sincerity, legitimacy and truth (Healey, 1992; Brooks, 2002).

Other important research in collaborative planning has demonstrated that community networks, education, and understanding the values and interests of stakeholders are beneficial to successful planning (Forester, 1994; Brooks; 2002). In this process, the planner may be required to act as a facilitator and consensus builder in contentious meetings between groups with conflicting values, goals, expertise, and resources (environmental groups and developers) (Forester, 1994; Booher and Innes, 2002). Forester's work explained that planners "shape others' expectations, beliefs, hopes, and understandings, even though planners do not strictly control any of these outcomes" (Forester, 1993, p25).

Collaborative planning, as presented by Healey (1997) was inspired by the recognition that planning is interactive, and that planning takes place in complex and dynamic environments and is built on ideas regarding communicative rationality (Healey, 2003). It aims to maintain and enhance the quality of places, and to be moral in both the process and outcomes of planning especially regarding resource allocation and regulation (Healey, 2003). Non-collaborative planning tends to privilege narrow interest groups, whereas including more stakeholders may help increase social justice in planning (Healey, 2003). Healey's focus was on the transformation of urban governance and attempts to change from traditional hierarchical processes to increasing the involvement of other groups and networks (NGOS or community representatives) (Healey, 2003). All collaborative planning involves some sort of governance process as well as some level of interaction among stakeholders (Healey, 2003). Collaborative planning does not guarantee justice in the process or outcomes, but Healey (1997, 2003) argued that it is ethical and inclusionary to assess the impact of projects on people and places especially in a multicultural context where individuals may have particularly different identities and values (Healey, 2003). Lastly, planning needs to take every unique location into consideration, as governance processes differ; planning should be "grounded in the particularities of specific times and places" (Healey, 2003, p116).

Consensus building through community involvement, public consultation, and inter-organizational networks is important in collaborative planning for resource management, community development or investment (Booher and Innes, 2002). Consensus building is useful in strategic planning of controversial, complex, or uncertain projects or policies (Innes and Booher, 1999). Stakeholder involvement and participation in the planning process helped to overcome some barriers (stakeholder conflict) faced in the practical field of planning by creating links among actors in projects (Innes and Booher, 1999; Booher and Innes, 2002). Stakeholder conflict may be a barrier to project development because of differing knowledge, and values among individuals in communities (Innes and Booher, 1999). Planners help to shape power in various projects by acting as facilitators and negotiators to help ensure focus. However, they are not in control of the power alone; together stakeholders help create the power (Booher and Innes, 2002). Planners need to effectively listen, communicate, and ensure other actors hear and understand others' interests and values. They also need to empower actors to participate in projects and have the ability to negotiate with actors (Booher and Innes, 2002). Authority, wealth, force and persuasion have become less effective in management while networks and collaboration have increased, allowing agencies or individuals to accomplish tasks they could not achieve independently (Kotter, 1985; Booher and Innes, 2002).

Consensus building can help direct communities toward higher levels of social and environmental performance by having stakeholders work together in project development (Innes and Booher, 1999). Innes and Booher (2002) argued that consensus among stakeholders is more likely to produce innovative ideas and also because it takes more interests into account, it is less likely that unhappy stakeholders will aim to sabotage the project (Innes and Booher, 1999). Innes and Booher (1999) developed a framework for evaluating consensus building. A process for consensus building that is of high quality should be self- organizing and evolving, make connections among, engage and empower all stakeholders (Innes and Booher, 1999). The criteria for their framework (process and outcome) is presented in Figure 2.5.

Figure 2. 5: Process and Outcome Criteria for Evaluating Consensus Building

Process Criteria

A good consensus building process is one which meets the following criteria:

- Includes representatives of all relevant and significantly different interests.
- Is driven by a purpose and task that are real, practical, and shared by the group.
- Is self-organizing, allowing participants to decide on ground rules, objectives, tasks, working groups, and discussion topics.
- Engages participants, keeping them at the table, interested, and learning through in-depth discussion, drama, humor, and informal interaction.
- Encourages challenges to the status quo and fosters creative thinking.
- Incorporates high-quality information of many types and assures agreement on its meaning.
- Seeks consensus only after discussions have fully explored the issues and interests and significant effort has been made to find creative responses to differences.[11]

Outcome Criteria

- Produces a high-quality agreement.
- Ends stalemate.
- Compares favorably with other planning methods in terms of costs and benefits.
- Produces creative ideas.
- Results in learning and change in and beyond the group.
- Creates social and political capital.
- Produces information that stakeholders understand and accept.
- Sets in motion a cascade of changes in attitudes, behaviors and actions, spinoff partnerships, and new practices or institutions.
- Results in institutions and practices that are flexible and networked, permitting the community to be more creatively responsive to change and conflict.

Source: Innes and Booher, 1999, p418

Booher and Innes (2002) identified conditions that enable network power: 1) diverse stakeholders with varying values, experiences, resources, and information; 2) stakeholder interdependence (the ability of stakeholders to meet their interests depends on other stakeholders' actions); 3) accurate and trusted communication (authentic dialogue) in the network (Booher and Innes, 2002). The purpose of Booher and Innes' (2002) study was to demonstrate that a higher level of planning power emerged from networks and consensus building and overall collaborative planning; their research strived to link power with collaborative efforts.

Conflict resolution methods and negotiation play a large role in collaborative planning. Individuals can meet their needs or achieve their goals through negotiations, creating new options that may not have been available to them individually or when they were in conflict with others (Booher and Innes, 2002, p225). Negotiation theory offers concepts that address the political rationality of decisions (Shmueli et al., 2008, p360). Negotiation is the key method of joint decision making and as a result it is critical in collaborative planning (Shmueli et al., 2008). Stakeholders' interests, understanding of benefits and mutual gains from collaboration, and information are key concepts in negotiation (Shmueli et al., 2008; Carroll and Carberry, 2000). The concept of negotiation allows planners to better understand what works and what does not work in certain areas, and why (Shmuelie et al., 2008).

In negotiation, actors need to be open and honest, willing to listen and share their beliefs, and have the ability to revise their own beliefs based on shared information (Carroll and Carberry, 2000). Negotiation is not aimed to enforce views upon others, but to share values and beliefs in order to determine what is best for the group (Carrol and Carberry, 2000).

Overall, collaboration in planning is important to consider for environmental resource management. The involvement of stakeholders may produce more acceptable and successful projects. This section has demonstrated that planners play a critical role in facilitating throughout the planning process. In addition, although Habermas's (1989) communicative rationality is not practical in reality, it acts as a goal or guideline for planners to follow.

2.7.2.2 Selin and Chavez's Tourism Partnership Model

Collaboration theory in tourism planning, management and development has become very prevalent over the past decade to help manage emerging environmental issues: climate change, biodiversity loss, resource depletion and the impact from globalization (Selin, 1999; Jamal and Stronza, 2009; Plummer et al., 2006). Tourism is a complex industry that impacts several groups (Jamal and Stronza, 2009; De Araujo and Bramwell, 2002; Hardy and Beeton, 2001). With an array of unique groups, this poses a challenge in terms of implementing collaboration (De Araujo and Bramwell, 2002). Specifically in tourism, each group will differ in terms of their interests at a local, regional, or national scale as well as their influence over decision making (Jamal and Stronza, 2009). In less developed countries, collaboration theory has additional possible constraints, for example power might be centralized in the national government with very little influence given to the local government. In areas where there is a social divide, poor social groups may not be interested in participation as they have more important focuses like making ends meet (De Araujo and Bramwell, 2002).

Applying collaboration theory to tackle issues related to natural protected areas must include the identification and inclusion of multiple relationships. The relationship between public or private sector organizations, the biophysical world, the individuals living in the area, and those who have a stake in the area need to all be included in the process of collaboration of a natural protected area (Jamal and Stronza, 2009). Environmental NGOs are usually viewed as key stakeholders in biodiversity conservation, while scientists are considered key knowledge holders (Jamal and Stronza, 2009; Starik, 1995).

Selin and Chavez (1995) conducted important research regarding tourism collaboration. Their research adopted Gray's (1985) concept of a partnership which is "a voluntary pooling of resources (labor, money, information, etc.) between two or more parties to accomplish collaborative goals" (Selin and Chavez, p845). Selin and Chavez (1995) recognized the lack of research regarding the process of partnership development and evolution. Their research stressed the complex environment in which stakeholders involved in tourism operate, with varying goals ranging from economic, social, and environmental focuses. They also noted the importance of a domain level focus in tourism partnerships rather than simply partnerships at the organization level (Selin and Chavez, 1995).

Selin and Chavez (1995) developed a model of the evolution of tourism partnerships based on Gray's (1985) seminal work and various case studies on tourism partnerships. The model they developed proposed that tourism partnerships progress through five stages: antecedents, problem-setting, direction setting, structuring and outcomes (Selin and Chavez, 1995; Plummer et al., 2006).

Figure 2. 6: Tourism Partnership Model

ANTECEDENTS	PROBLEM-SETTING	DIRECTION-SETTING	STRUCTURING	OUTCOMES
-crisis	-recognize interdependence	-establish goals	-formalizing relationship	-programe
-broker	-consensus on legitimate stakeholders	-set ground rules	-roles assigned	-impacts
-mandate		-joint information search	-tasks elaborated	-benefits derived
-common vision	-common problem definition	-explore options	-monitoring and control systems designed	
-existing networks	-perceived benefits to stakeholders	-organize sub-groups		
-leadership	-perceived salience to stakeholders			
-incentives				

An Evolutionary Model of Tourism Partnerships

Source: Selin and Chavez, 1995, p 848

Selin and Chevez's model began with an antecedent such as an environmental force that causes the partnership to be initiated. From this environmental context, partnerships evolve through direction setting, problem solving and structuring (Selin and Chavez, 1995). Crisis frequently is the means of initiating a partnership, For example, serious marine biodiversity loss in a dive tourism destination. However, in addition to a crisis, a broker or convenor may initiate the process. A common vision among stakeholders is an important aspect of tourism partnership formation. Selin and Chavez's (1995) research on partnerships demonstrated that a mutual recognition (among stakeholder groups) that tourism plays an important role in the economy of the area was present.

Existing professional or social networks help naturally develop relationships and expand their past or present work towards the goals of the project (Selin and Chavez, 1995). Therefore, existing networks of some form are likely to be present in very small island settings. A strong-willed, enthusiastic leader often was the catalyst for partnership development, as were incentives (including grants) and the vested interests of stakeholders (Selin and Chavez, 1995). Areas that are likely to have experienced successful partnership development tended to have a strong sense of community which helped motivate participation in the partnership (Selin and Chavez, 1995).

In the problem setting stage interdependencies among stakeholders, and perceived benefits from participating in the partnership are important. "It is highly unlikely that a partnership will be successful unless there is a perception that partnership outcomes will result in benefits to each partner" (Selin and Chavez, 1995, p849). The model progresses in a cyclical manner through direction setting, structuring and outcomes.

Interdependencies, leadership, networks, benefits, and common goals are all very important aspects of Selin and Chavez's (1995) model. The purpose of their study was to develop an evolutionary model of tourism partnerships that emphasized the dynamic and fragile reality of collaboration (Selin and Chavez, 1995). They outlined the need for further research regarding barriers to partnership development and success and also studies that examine conditions at each stage of the partnership model.

2.7.3 Sustainable Livelihoods Approach

      The concept of sustainable livelihoods approach is seen as far back as 1987 when the World Commission on Environment and Development supported the idea of maintaining and enhancing resource productivity and ownership to ensure that food and cash met basic needs and rural livelihood security (Singh and Gilman, 1999; Chambers and Conway, 1992; Brocklesby and Fisher, 2003). The sustainable livelihoods approach changed perspectives on poverty, participation and sustainable development (Brocklesby and Fisher, 2003; Chambers and Conway, 1992). By 1992 this concept progressed to action through Agenda 21 which promoted the achievement of sustainable livelihoods as a goal for eradicating poverty (Singh and Gilman, 1999). The sustainable livelihoods approach essentially links socioeconomic concerns with environmental concerns (Brocklesby and Fisher, 2003).

      A sustainable livelihoods approach concentrates on people and their livelihoods (Graci and Dodds, 2010). It aims to promote preservation of a community's livelihood to ensure a sustained and healthy future especially for rural or poor communities (Chambers and Conway, 1992). In the simplest terms, a livelihood is defined by Chambers and Conway (1992, p5) as: "a means of gaining a living." Chambers and Conway (1992, p6) discuss sustainable livelihoods and define it as:

> A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term.

      The sustainable livelihoods approach stresses the importance of local involvement; the local community's interests and needs must be understood (Graci and Dodds, 2010). It is an approach that gains an understanding of the assets that poor people have and their relationships to these assets in order to help plan new development activities and to help assess the input that current activities have made to sustain their livelihoods (IFAD, n.d).

      There are seven guiding principles of a sustainable livelihoods approach. The principles are that the approach is: people-centred, holistic, dynamic, it builds on strengths, promotes micro-macro links, encourages broad partnerships, and aims for sustainability (IFAD, n.d.; Graci and Dodds, 2010). Brocklesby and Fisher (2003) outline four main components (based on the widely adopted description used by the Department for International Development: Carney, n.d) of the sustainable livelihoods framework, summarised in table 2.3:

Table 2. 3: The Four main Components of the Sustainable Livelihoods Framework

Vulnerability Context	People are exposed to risk, sudden shocks, trends and seasonal change
Capital Assets	Social, Natural, Financial, Physical, and Human Capital are used to make peoples livelihoods. They are put together to create the Asset Pentagon to assess people's overall asset base
Livelihood Strategies and Outcomes	Capital assets are drawn on within peoples livelihood strategies, which essentially are choices and activities through which people try to generate a living or livelihood outcome
Policies, Institutions and Processes	Together, policies, institutions and processes shape access to assets, livelihood activities and vulnerability context

Source: based on information from: (Brocklesby and Fisher, 2003; Carney n.d; IFAD, n.d.)

Sustainable livelihoods approaches attempt to develop resource-centred solutions and focus on people and their ability to initiate and sustain change (Brocklesby and Fisher, 2003).

2.7.3.1 Sustainable Livelihoods Approach and its Application to Sustainable Tourism Development

Sustainable livelihoods approach is very relevant to tourism management in small islands as it is centred on local people and their livelihoods. Graci and Dodds (2010) apply a sustainable livelihood approach to small island tourism destinations. This approach can reveal innovative approaches to sustainable island tourism, because it is people themselves who are expressing their own constraints through this approach (Graci and Dodds, 2010).

2.7.4 Summary of Theories

It is evident that, in order for sea turtle tourism and conservation to be successful, a variety of stakeholders must be identified and involved. Collaboration in planning, and Selin and Chavez's (1995) model acted as guides to develop interview questions and themes regarding collaboration, while stakeholder analysis served as a tool to help appropriately identify stakeholders and successfully obtain their perspectives. In addition to stakeholder involvement, sustainable livelihoods approach suggested that local livelihoods related to the study were important to explore and understand for sustainable management. The sustainable livelihoods approach explained the importance of understanding what the community relied on for their livelihood in order to implement appropriate management techniques.

Stakeholder analysis, collaboration theory, and sustainable livelihoods approach all complement each other and provide a strong theoretical framework for this study.

2.8 Current Gaps in Research

There is a general lack of holistic research in sustainable tourism specifically focused on comparing stakeholder perceptions (Hardy and Beeton, 2001). According to Hardy and Beeton (2001), the vast majority of studies involving stakeholder perceptions focused on one stakeholder group rather than multiple groups. For example, community perceptions of tourism were a common focus of studies. There is a lack of reach regarding sustainable tourism specifically related to wildlife conservation in small islands. The focus of most research regarding wildlife conservation is in non-island settings focusing on a single stakeholder group.

Consequently, there is a large gap in research specifically linking stakeholder collaboration to promote conservation through sea turtle tourism. Without approaching this type of study holistically, and obtaining stakeholder beliefs, values and perceptions, relevant management plans cannot be created or implemented appropriately (Hardy and Beeton, 2001).

There is a gap in research examining opportunities for stakeholder collaboration to promote conservation through sea turtle tourism in developing countries, especially in small islands. There is evidence that stakeholder collaboration leads to best management practices in sea turtle tourism; however, there are no applied studies regarding the process of collaboration in this field and how successful partnerships can be developed in specific areas, especially in small developing islands. In addition, although there is research on best management practices regarding sea turtle tourism, there is a lack of research that attempts to apply these models in a practical sense to promote conservation in sea turtle tourism.

2.9 Conclusion

The review of the literature provided an overview of the past and current research related to sustainable tourism development with a focus on promoting conservation through sea turtle tourism. This review provides a base for the development of the methods used throughout the study. The following chapter discusses the research setting which provides a more specific foundation for the rest of the study.

Chapter 3: Research Setting

This chapter describes the setting for the research. Gili Trawangan, Lombok, Indonesia was the location selected for the research. In this chapter, tourism, sustainable tourism development, and more specifically the sea turtle tourism industry in Gili Trawangan are explored in order to contextualize the study. The history of tourism development in Gili Trawangan helps further set the scene for the study.

3.1 Indonesia

Indonesia is an archipelagic nation consisting of over 17 thousand islands located in the South Pacific (Afifi, 2000; Ardiwidjaja, n.d). The pristine marine environment is home to a wide array of marine life, and thus the islands are prime tourist attractions. Indonesia is part of the Coral Triangle, which consists of approximately 5.7 million square kilometres of seas in the Indo-Pacific and includes: Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands, and Timor-Leste (Clifton, 2009; Ainsworth et al., 2008; World Wildlife Fund, 2010). The Coral Triangle contains approximately 76% of all known coral species, over 3 thousand species of fish, six of the seven sea turtle species, and large areas of coral reefs, sea grass and mangroves (Clifton, 2009; World Wildlife Fund, 2010). This unique environment draws worldwide attention (Clifton, 2009; Ainsworth et al., 2008; World Wildlife Fund, 2010).

3.1.1 Indonesian Tourism Development

Between 1967 and 1998, President Suharto placed a large emphasis on tourism development in Indonesia (Hitchcock et al., 2008; Picard and Wood, 1997). By 1969, Indonesia opened its doors to international tourism (Picard and Wood, 1997). The development of tourism in Indonesia may have been seen as a strategy to help change the country's image from a violent and troubled area to a cultural and picturesque attraction with pristine beaches, traditional dances and unique ceremonies (Picard and Wood, 1997; Hitchcock et al., 2008).

International tourist arrivals went from approximately 26 thousand in 1967 to near 400 thousand per year by mid 1970, and by 1987 international tourist arrivals reached 1.06 million (Hitchcock et al., 2008). Between 1990 and 1996, foreign visitor arrivals continued to increase to 5.6 million in 1996. After 1996, the tourism industry experienced various dips and peaks mainly due to political unrest and natural disasters in 1997-1999, terrorist bombings in 2002, the SARS epidemic in 2003, and the Boxing Day tsunami in 2004 (Hitchcock et al., 2008). Foreign tourist arrivals to Indonesia have been generally increasing over the last decade. In 2008 there were about 6 million foreign tourist arrivals which translated into approximately 7, 377,39 million USD for the country (Government of Indonesia, 2008).

3.1.2 Sustainable Tourism Development Indonesia

Indonesia has long been committed to the concepts of sustainable development in principle. In 1973, the General Guidelines for State Policy emphasized that the use of natural resources should be executed in a manner that takes into account the needs of future generations (Hanum, 1992). National development guidelines also are linked to sustainability stating that all development should be with an environmental orientation and wisdom (Hanum, 1992). In 1983, a new branch of the government developed: the Ministry of Population and Environment which is responsible for the environment and its management (Hanum, 1992; The World Bank, 2009).

Although Indonesia in theory is dedicated to sustainable development, the country is lacking in actually applying the concept. The main general goals of Indonesia's Tourism Industry are currently to increase tourist numbers and length of stay, improve quality of the environment, and empower local communities. Increasing tourist numbers and length of stay have been the main goals in order to primarily obtain economic benefit. In terms of sustainable practices, Indonesia is aiming to increase community involvement in tourism by developing human skills related to the industry (Ardiwidjaja, n.d.).

Although Indonesia has adopted the concept of sustainable tourism development, they are lacking in actual implementation and enforcement of the concept (World Bank, 2009; Hanum, 1992; Ardiwidjaja, n.d.).

3.1.3 Challenges to Sustainable Tourism Development in Indonesia

Although there are many environmental protection laws and directives in Indonesia, the challenge lies with implementation, staffing and training (Whitten et al., 1996; Hitchcock et al 2008; Ardiwidjaja, n.d.; World Bank, 2009).

Indonesia faces challenges including limited resources (financial, information, and human skill), stakeholder perceptions and awareness, resource exploitation for short term economic gain, and leakage due to international investments (Ardiwidjaja, n.d; Hanum, 1992; World Bank, 2009). Increasing public awareness in Indonesia is essential in an effort to protect the nation's biodiversity (World Bank, 2009).

Indonesian government is focused more on the economic benefits of tourism (e.g., alleviate poverty, increase employment, and reduce income disparities) and less on actual methods to help conserve resources for future use (Ardiwidjaja, n.d.). An increase in stakeholder participation and awareness is necessary in the tourism industry in Indonesia, as it is currently lacking. This will help develop more effective policies and general planning into the future (Ardiwidjaja, n.d.).

3.1.4 Marine Conservation in Indonesia

The destruction of the coral reefs around Indonesia has increased over the last decade due to unsustainable practices including fishing practices (blast fishing, weighted lines), sewage discharge, tourism, poor enforcement capacity, and low public awareness (Afifi, 2000). Over 70 percent of the reefs in Indonesia are in fair to poor condition (Afifi, 2000).

In the early 1980s, Indonesia realized that marine protection was necessary to help conserve the marine environment. Currently there are at least 36 Designated Marine Conservation Areas in Indonesia which cover approximately 4 million 7 hundred thousand hectares. These conservation areas include national parks, nature reserves, nature recreation parks, and wildlife sanctuaries (World Wildlife Fund Indonesia, 2004).

Sea turtles are known to be abundant in the waters surrounding Indonesia; as such Indonesia is often referred to as the Sea Turtle Capital of the World (World Wildlife Fund Indonesia, 2004). Indonesia is home to six of the seven recognized species of sea turtles; however, it is estimated that only 10-20% of the population of Indonesian sea turtles remains (World Wildlife Fund Indonesia, 2004; World Wildlife Fund, n.d.).

The World Wildlife Fund Indonesia is taking strategic steps that focus specifically on the conservation of two sea turtle species in Indonesia: the Green sea turtle, and the Leatherback turtle. The strategies focus on protecting

critical sites, creating partnerships with fisheries to reduce by-catch, and help to reduce the trade of meat and eggs (World Wildlife Fund, n.d.).

3.2 Research Setting: Gili Trawangan, Indonesia

Gili Trawangan is one of the three Gili Islands located just off the North-western coast of Lombok, in the province of Nusa Tenggara Barat, one of the poorest regions in Indonesia (Dickerson, 2008; Dodds et al., 2010; Afifi, 2000; Ver Berkmoes, 2009; Hitchcock et al., 2008). Figure 3.1 is a map of Gili Trawangan's location.

Gili Trawangan has an area of only six square kilometres (Dickerson, 2008; Hitchcock et al., 2008). In the 1980s as nearby Bali attracted more tourists and moved up Butler's S-shaped resort cycle curve (Butler, 1980), tourists began to discover Lombok and consequently Gili Trawangan (Hitchcock et al., 2008). The population in Gili Trawangan has been increasing. It is estimated that the population in Gili Trawangan rose from 886 to 1089 between 1997 and 2000 (Dickerson, 2008). In 2005, Gili Trawangan had an estimated population of 474 families comprising about 1900 local people (Graci, 2008a). There are no motorized vehicles on Gili Trawangan; transportation is by Cidomo (horse drawn carts) and bicycle on dirt roads (Hampton, 1998).

Figure 3. 1: Location of Gili Trawangan, Lombok, Indonesia
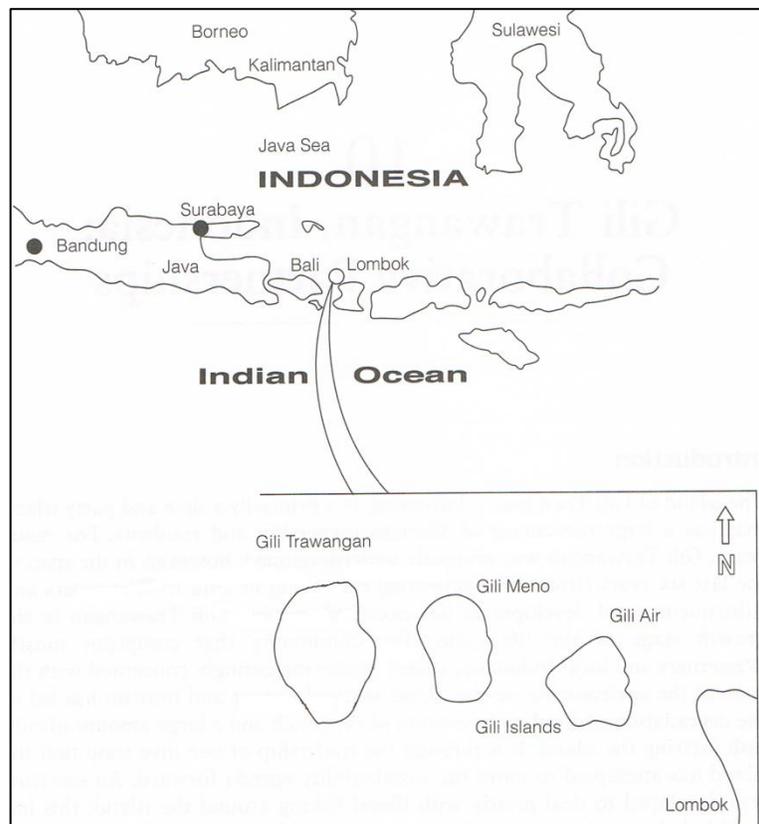
Source: Altered from Graci and Dodds, 2010, p122

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3.2.1 History of Gili Trawangan

Gili Trawangan was uninhabited prior to the 1970s, except when it was used by the Japanese in World War II to house prisoners of war and social outcasts (Dickerson, 2008). In the early 1970s, some individuals from Sulawesi and Lombok began to inhabit the island to work as farmers or fishermen (Dickerson, 2008). Up until the late 1970s, the Gili Islands relied heavily on the fishing industry to support their economy (Afifi, 2000; Hitchcock et al., 2008). Traditional fishing techniques were used in the waters around the island up until the late 1950s including: hand lines, nets, and fish traps. In the early 1960s, mura-ami (blast) fishing technology was introduced alongside seine nets. Together these new fishing technologies allowed for severe marine exploitation and degradation (Afifi, 2000).

There were attempts to harvest coconut trees on land, but due to mice and other disturbances their attempts were met with failure and the land was redistributed in 1981 (Dickerson, 2008). Coconut plantations were attempted by different land owners and failed once again, and by 1983 the first tourists arrived in Gili Trawangan (Dickerson, 2008).

Presently, although still only accessible by boat, by 1989 Gili Trawangan was developing into an international tourist destination (Dickerson, 2008; Hitchcock et al., 2008). Of the three Gili islands, Gili Trawangan attracts the most tourists per year (Graci, 2008a; Afifi, 2000). Today, the rapidly growing, unplanned tourism industry is the key economic base of the island (Graci, 2008a; Dodds et al., 2010; Dickerson, 2008; Hitchcock et al., 2008). The tourism industry in Gili Trawangan is approximately 95% of the GDP, and more than 80% of the local families are employed by tourism on the island (Graci, 2008a).

Gili Trawangan has a local high school with a curriculum that is purely dedicated to the hospitality and tourism industry. Expatriates and world travelers often volunteer their time to teach at the school, and the curriculum is not completely regulated.

There has been conflict regarding formal land ownership in Gili Trawangan for the past 25 years (Dickerson, 2008). The regional government manipulated legal requirements to make way for the development of a private four star hotel on the main beach. The manipulation of the requirements ended with the majority of Gili Trawangan's locals with no title to their land (Dickerson, 2008). In 1992, 1993 and 1995 there were multiple government-ordered army visits to the island to demolish any buildings along the beach that could not show formal land ownership certificates (Hampton, 1998). As such, many local residences and accommodations were destroyed, and fear and tensions still exist between the local community and the Indonesian government. Meanwhile no resort development has taken place as originally proposed by the government (Hampton, 1998; Dickerson, 2008). This complex history between the local community of Gili Trawangan, foreign investors and the government remains unresolved (Dickerson, 2008).

Gili Trawangan is facing increasing tourist numbers, resulting in environmental degradation (Dodds et al., 2010). The island lacks fresh water resources and relies on generator-produced electricity (Hampton, 1998; Dodds et al., 2010). Waste is not managed efficiently, and beach degradation alongside rapid development is further contributing to environmental damage (Dodds et al., 2010).

The reefs surrounding Gili Trawangan are damaged largely as a result of past blast fishing, boat anchoring and trampling which not only reduces the aesthetic appeal of the marine environment, but also causes beach erosion (Hitchcock et al., 2008). Anchoring from boats and from individuals walking on reefs is contributing to reef

destruction (Hitchcock et al., 2008). The environmental issues in Gili Trawangan (including lack of fresh water, costly generator-produced electricity, waste, beach degradation, and rapid development without formal planning) are contributing to pollution, higher living costs and aesthetic deterioration (Dodds et al., 2010). Aesthetic appeal is very important in attracting tourists to this region. To ensure long term viability there is an immediate need for a change toward a more sustainable tourism industry (Dodds et al., 2010).

3.2.2 Stage of the Life Cycle

In 1997, researchers observed that Gili Trawangan was between the "exploration" and "involvement" stages of Butler's (1980) S-shaped curve to describe the resort cycle (Hitchcock et al., 2008; Hampton, 1998). Gili Trawangan had a high tourist season from June to September and smaller peaks in December, January and February (Graci, 2008a; Hampton, 1998). Graci and Dodds' (2010) more recent research stated that Gili Trawangan was in the end stages of the "development" stage, and approaching the "consolidation" stage. Rapid increases in facilities as well as tourist numbers and improved accessibility to the island were observed (Graci and Dodds, 2010). In addition, the local community depended entirely on the tourism industry on the island (Graci and Dodds, 2010).

3.2.3 Sea Turtles in Gili Trawangan

The green sea turtle and the hawksbill turtle inhabit the waters around Bali and Lombok, near the Gili Islands (Ver Berkmoes, 2009). Gili Trawangan used to be a prime nesting beach for female sea turtles; however, nesting has declined over the years. There were some conservation efforts on Gili Trawangan (Island Promotions, 2006). A turtle hatchery managed by the Head of the Village, protected turtle eggs until their nesting stage. After hatching occurs, the turtles were kept in holding tanks until they were released at sea approximately one year later. The turtle project relied on donations from the local community and tourists (Island Promotions, 2006). This type of technique is called "head-starting" as it allows sea turtles to develop in hopes that their larger body size (when released at one year old) will allow them to better survive predation. This technique is often referred to as a halfway technology for sea turtle conservation (Frazer, 1992). The problem with this type of management is that the main reason why sea turtles are endangered (anthropogenic stress) is not being dealt with (Frazer, 1992).

Gili Trawangan is often referred to and marketed as the "Sea Turtle Capital of the World" (World Wildlife Fund Indonesia, 2004; Island Promotions, 2006). There is an abundant population of sea turtles that inhabit the waters around the island (World Wildlife Fund Indonesia, 2004). The sea turtles are a reliable tourism product because of their large population. For these reasons sea turtle conservation is so imperative in this area because practices on the island can have a large impact on global populations and in turn on the local tourism market.

3.2.4 Conservation in Gili Trawangan

The Gili Ecotrust and the Gili Matra Marine Natural Recreation Park, and the turtle hatchery (discussed in the previous section) are all conservation initiatives that presently exist in Gili Trawangan. The Gili Ecotrust and the Gili Matra Marine Natrual Recreation Park are both discussed in the following sections.

3.2.4.1 The Gili Ecotrust

The Gili Ecotrust is an environmental NGO based in Gili Trawangan that was established in 2002 to help eliminate blast fishing, and to help promote environmental conservation and sustainability (Gili Ecotrust, 2010). It is

currently striving to develop conservation programs to protect critical features of the environment like corals and sea turtles in order to maintain the tourism industry. The organization was founded by a dive shop owner and the six other dive shops that existed on the island at the time (Graci and Dodds, 2010).

The purpose of the Gili Ecotrust was originally to manage a dive tax that is collected from divers (3USD) and snorkelers (1USD) by dive operators and redistributed to the local fishermen to stop bomb fishing and the use of drag nets (Graci and Dodds, 2010). Beyond marine-based protection, the organization has also attempted to improve waste management on the island through waste sorting and beach cleanups; however, their main focus remains on marine protection (Graci and Dodds, 2010; Gili Ecotrust, 2010).

The organization recognizes the impact created by the growing tourism industry, and the need to implement and enforce changes in local management. A recent initiative to include more local businesses, beyond dive shops, in meetings is aimed at expanding community involvement and awareness of environmental problems (Gili Ecotrust, 2010). The Gili Ecotrust is a collaboration that includes a local ENGO, some local operations (mainly dive shops), and a few locals.

3.4.2.2 The Gili Matra Marine Natural Recreation Park
The Gili Matra Marine Natural Recreation Park in West Nusa Tengarra Province was established in 1993 and is nearly 3 thousand hectares including the area of the three Gili Islands (Djuharsa, 2009). The Marine Park aims to promote the sustainable use of the Park's resources, and to encourage local participation in park management to help protect biological values and eliminate further disturbances. It also aims to protect endangered species such as the sea turtles, and maintain the locations designated for recreation and tourism development (Djuharsam 2009). Overall, on paper the park strives to achieve compatible use and management of species and their habitats. Although Gili Trawangan falls within the Marine Park, there is little to no knowledge of the park's existence on Gili Trawangan, and, therefore, although it may exist on paper, in practise the park plays little to no role (Graci and Dodds, 2010).

3.2.5 Challenges to Sustainable Tourism Development
Gili Trawangan faces the many challenges that islands face in sustainable tourism development. Many challenges are not independent, but intertwined with other obstacles. Below are the specific challenges as outlined in past research.

Table 3. 1: A Summary of Challenges to Sustainable Tourism Development in Gili Trawangan

Challenge	Description
Inadequate resources	There is a lack of skills, information, money, and expertise to put ideas into motion on the island
Lack of responsibility/ownership of environmental problems	Everyone is too busy to contribute to development and the implementation of guidelines, regulations, policies or projects
Resistance to change	There is resistance to change mostly from the local community. This may also be linked to a lack of education.
Regulatory corruption	The national government collects taxes but does not invest in infrastructure or development initiatives on the island. Regulatory heads of the island accept bribes for illegal development (e.g., beach development). There is a random pricing structure for services that is based on relationships. For example, some groups pay less for waste collection because they have a good relationship with regulators.
Lack of Infrastructure	There is a lack of sewage treatment plant due to the potential of salt water degradation. There is also a lack of technology including solar panels due to lack of skills required to install and maintain them.
Lack of space	The lack of physical space limits possibility to develop composts and other infrastructure.
Tourist lack of awareness	There is a disconnect between the local village and tourists, therefore tourists are not exposed to the problems that plague the island, like waste management.

(Graci and Dodds, 2010; Hitchcock et al., 2008; Dickerson, 2008; Hampton, 1998; Graci, 2008a

Gili Trawangan lacks resources including skills, information and expertise which are helpful in implementing and developing effective tourism management plans (Graci and Dodds, 2010). The island itself is very small in terms of physical space, as a result it is difficult to find enough space for certain infrastructure (e.g., large composts or waste treatment facilities) (Graci and Dodds, 2010; Hampton, 1998). A lack of infrastructure is also linked to a lack of skills required for development and maintenance (Graci and Dodds, 2010). Without certain infrastructure, it is difficult to effectively manage the tourism industry and its impact, like waste. Money and corruption were both linked to infrastructure in Gili Trawangan. The Indonesian Government collects taxes; but does not invest in the island in return (Hitchcock et al., 2008; Dickerson, 2008). The village where the locals live is near the centre of the island and is very segregated from where tourists visit and stay. As such, tourists are not exposed to many of the problems of the island and as a result lack awareness (Graci and Dodds, 2010). It has also been discovered that there is a resistance to change mostly from the local community, and therefore necessary changes that encourage sustainable development may be difficult (Graci and Dodds, 2010). A lack of responsibility and ownership of environmental issues have also been found as barriers to sustainable tourism development on the island (Graci and Dodds, 2010). All of these findings have been found to be obstacles to sustainable tourism development in Gili Trawangan.

3.2.6 Stakeholders for the Promotion of Conservation through Sea Turtle Tourism

A stakeholder map was developed for this study (Figure 3.2.) The stakeholder map draws from Sautter and Leisen (1999); Higgenbottom and Scott (2008), Choi and Eckert (2009), Hardy and Beeton (2001), who examined stakeholders groups in various domains of tourism including sea turtle tourism. It was then modified to reflect the island of Gili Trawangan. As previously stated, a stakeholder group in tourism is a group of individual stakeholders

who share commonalities relating to the management of the tourism industry. This map is a stakeholder map identifying stakeholder groups relevant to this study, based on the literature.

Figure 3. 2: Stakeholder Map for Conservation through Sea Turtle Tourism in Gili Trawangan, Indonesia

Adapted from: Sautter and Leisen, 1999; Higgenbottom and Scott, 2008; Choi and Eckert, 2009; Hardy and Beeton, 2001.

Applying the definition in the social sciences, a stakeholder for this research is defined as: any group or individual who can affect or is affected by sea turtle tourism or conservation in Gili Trawangan, Indonesia. Based on this description, the individuals or parties identified in Figure 3.2 are stakeholders. Their characteristics, values, demands, actions, and perspectives therefore have an impact on sea turtle tourism and conservation practices in Gili Trawangan. As such, each stakeholder is very important to understand in this study.
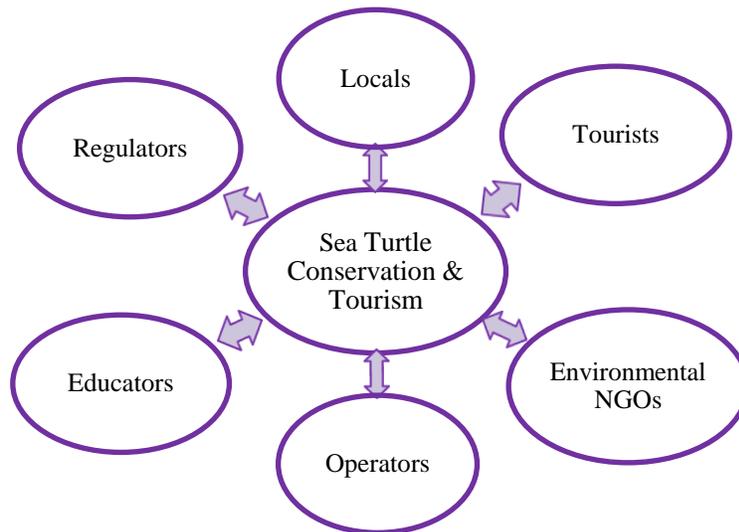
3.2.6.1 Definitions of each Stakeholder Group

Below are the definitions of each stakeholder group used in this study:

o Tourists are those coming to Gili Trawangan for pleasure, non-work related issues, and those who do not live on the island.

o Locals are those who are currently living on Gili Trawangan, and have lived on the island for at least five years. Hardy and Beeton (2001) define local people as those who live in the study area. However, this is not accurate for this study due to such a high turnover of individuals living on the island. Five years is also appropriate because people only began to inhabit the island in the 1970s. It is a relatively recently inhabited island.

o Educators are teachers or administrative workers at the school in Gili Trawangan.

o Regulators are those who contribute to the management of the area of Gili Trawangan. Such as employees of government departments, councillors, and/or those in a governing role, as Hardy and Beeton (2001) defined them.

o   Operators are those involved in operating businesses in Gili Trawangan.

o   Environmental Non-Governmental Organizations are non-government groups striving to protect the environment in Gili Trawangan.

Although Choi and Eckert (2009) stated that the government is an important stakeholder for the promotion of conservation through sea turtle tourism, it is clear that the island of Gili Trawangan is so isolated from the Indonesian government, that they are not in fact a key stakeholder for this study. As such, regulators (although not necessarily government employees) play a governing role in Gili Trawangan, and are important stakeholders. Coastal residents do not exist in Gili Trawangan; local businesses line the beachside and fall under "operators", and beach users fall under many stakeholder groups including "operators" and "tourists".

3.3 Conclusion

It is clear that Indonesia, and more specifically Gili Trawangan, is undergoing rapid and unplanned tourism development which is causing stress on natural resources including sea turtles. As such, it is a prime area for a case study attempting to examine an opportunity for stakeholder collaboration to promote conservation through sea turtle tourism. The following chapters present methods, followed by the results and analysis of the information, and key influences and recommendations to stakeholders in Gili Trawangan.

Chapter 4: Methodology

This chapter discusses all approaches and procedures that were used to determine opportunities and barriers to collaboration to promote conservation in the sea turtle tourism industry. To identify these factors, a multi-method study was conducted. The research focuses on conservation tourism in Gili Trawangan, Indonesia.

4.1 Purpose and Objectives of the Study

The purpose of this study is to examine an opportunity for stakeholder collaboration to promote conservation in the sea turtle tourism industry in Gili Trawangan, Indonesia. The study is intended to build on past research related to sustainable tourism development in small islands, and stakeholder collaboration in the tourism industry. Stakeholder analysis, collaboration theory and sustainable livelihoods framework acted a base to identify areas to be included in the study's interview.

4.1.1 Objectives of the study

The following objectives will be explored in this study:

1)   Examine the literature and identify the stakeholders and any gaps in research on sea turtle tourism and conservation.
2)   Identify key issues, obstacles, and opportunities for stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan.
3)   Develop recommendations regarding stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan.

This study will provide insight into the state of the sea turtle tourism industry in Gili Trawangan in terms of stakeholder perceptions of sea turtles as a tourism resource, the value of sea turtles, current practices, and management strategies. The study reveals barriers and explores the opportunity for stakeholder collaboration to promote conservation in the sea turtle tourism industry through obtaining and analysing stakeholder perspectives.

4.2 Research Methods

Research requires careful, patient, and methodical inquiry carried out according to certain rules (Sommer and Sommer, 2002, p1). Theories help understand the types of information required to define the problem area and potential solutions while methods determine the way in which information should be obtained by implementing appropriate procedures for data collection.

A multi-method approach was used for this study. This approach draws on the strengths of multiple approaches to help overcome weaknesses of using only one method and increase the validity and comprehensiveness of the study (Brewer and Hunter, 2006; Sommer and Sommer, 2002).

This study was exploratory, descriptive and prescriptive. It explored influences and barriers to stakeholder collaboration to promote conservation through sea turtle conservation. The study is descriptive because it describes the current setting of Gili Trawangan and the attempts at conservation through sea turtle tourism, and it is prescriptive in that it provides actual recommendations for stakeholders to help achieve collaboration and ultimately promote conservation through sea turtle tourism on the island.

4.2.1 Multi-method Approach

There is no ideal single technique available for most research in social sciences; each technique has unique strengths and limitations (Sommer and Sommer, 2002; Flick, 2007). Due to limitations of each research method, social science methods should not be treated as mutually exclusive. When used together, methods can overcome weaknesses and limitations of each method, and benefit from each method's strengths (Brewer and Hunter, 2006; Sommer and Sommer, 2002). A multi-method approach allows the researcher to employ a variety of methods to support the entire area of research. If the methods used in a multi-method approach have dissimilar weaknesses, the results may be considered more valid than research that relies on a single approach due to an increased confidence (Brewer and Hunter, 2006). Research problems often require more than one method to satisfy the solution, therefore, a multi-method approach is appropriate.

In addition to multiple methods supporting each other in terms of strengths and weaknesses, a multi-method approach is useful when methods overlap. E.g., observations are often necessary to formulate accurate and effective interview questions (Sommer and Sommer, 2002).

4.2.2 Interview versus Questionnaire

Interviews and questionnaires are useful to gain an understanding of peoples' perceptions, beliefs and feelings. Interviews allow individuals to express themselves in their own words as opposed to questionnaires that tend to be more confining to choices created by the researcher. It is beneficial to have interviewees express themselves, as it may provide the interviewer with unexpected responses that may have been left out had a survey or questionnaire been created (Sommer and Sommer, 2002). Interviews allow the participant to articulate their feelings or knowledge. Interviews allow the interviewer to pursue half-answered questions and more detail where questionnaires lack this ability (Sommer and Sommer, 2002). Also, individuals may be more willing to express themselves verbally than in writing because it is easier and perhaps less time consuming than a questionnaire (Sommer and Sommer, 2002). There are disadvantages to interviews. They are more time consuming and may be more costly than questionnaires. In addition, depending on the skill of the interviewer, the information may be subject to personal bias (Sommer and Sommer, 2002).

4.2.2.1 Interview

Interviews allow the exploration of complex perceptions and feelings (Sommer and Sommer, 2002). "With encouragement and the recognition of genuine interest on the part of the interviewer, people will reveal a great deal about themselves and about their beliefs and feelings" (Sommer and Sommer, 2002, p 112). Interviews allow participants to share their stories and beliefs in their own words. This type of opportunity can be beneficial for participants because it allows them to release feelings and can also be empowering because interviews recognize "respondents as experts on their own experiences" (Sommer and Sommer, 2002). There are three types of interview styles: unstructured, semi-structured and structured. Each is introduced and discussed below.

4.2.2.2 Unstructured Interview

Unstructured interviews are useful when the goal of the research is to explore a topic where the interviewer may have a topic in mind and some specific questions, but there is no predetermined order or wording for the

questions (Sommer and Sommer, 2002). This style of interview may be useful when researching sensitive topics or to help develop a structured interview or questionnaire (Sommer and Sommer, 2002).

4.2.2.3 Semi-structured Interview

A semi-structured interview requires a set of questions or themes to be formulated prior to interviews, but allows the researcher to be creative in terms of the order in which the questions are asked, and exactly how the questions are worded for each participant (Sommer and Sommer, 2002). The benefit of this type of structure in an interview is that participants are asked questions in an order or form that best suits the individual situation or the respondent and allows the respondent to go into greater depth regarding themes they are most knowledgeable without being redirected by the interviewer. A semi-structured interview may also be essential in terms of interviewing individuals of different cultures, or social backgrounds because one structure may not be suitable for all participants (Sommer and Sommer, 2002).

4.2.2.4 Structured Interview

Structured interviews are questions formed prior to conducting the interviews. Questions are in a set order and manner to ensure consistency between situations. This type of interview is important for conducting interviews with a large sample size when numerous researchers are involved so that the information obtained can be easily and accurately combined (Sommer and Sommer, 2002). This type of structure may be a limitation when respondents vary in culture, age or social background as one structure may not be suitable for all respondents (Sommer and Sommer, 2002).

4.2.2.5 Summary

Sommer and Sommer (2002) stressed that the interest of the interviewer influences the interest of the interviewee. In addition, interviews tend to be more successful when the interviewer expresses the social or scientific value of information resulting from the interview because it places the interviewee on the knowledgeable side (Sommer and Sommer, 2002). Limitations exist in any interview method. Less structured interviews are likely to have a larger interviewer bias due to a loss of consistency in the interview process (Sommer and Sommer, 2002). In addition to interviewer bias, responses from interviewees are not necessarily an accurate description of what they would actually do (Sommer and Sommer, 2002).

4.2.3 Observation

Observation is a technique that can be used as the sole method in a study, but is often used to support other methods, like interviews (Sommer and Sommer, 2002). Before beginning and interview it is necessary to first observe the situation to see where to locate people, how they behave naturally, and how long they appear to be available (Sommer and Sommer, 2002). This type of information is important to obtain prior to commencing an interview to avoid creating interview conditions that may not be comfortable or may be distracting to the participant (Sommer and Sommer, 2002). Observation is an important method because it does not involve conversation which is important when studying those who do not speak your language (Sommer and Sommer, 2002).

Casual observation is conducted without prearranged categories or scoring (Sommer and Sommer, 2002). It is useful when combined with another procedure and also at an early stage in the research. It is crucial for developing

good questions in appropriate scenarios for research (Sommer and Sommer, 2002). Casual observation is based on personal interpretations of the observer and may therefore lack reliability (Sommer and Sommer, 2002). Utilising more than one observer to provide additional checks may help increase the reliability of observation (Sommer and Sommer, 2002).

4.2.4 Qualitative Versus Quantitative Research

Quantitative research focuses on collecting and examining numerical information for statistical analysis and testing a predetermined hypothesis (Weathington et al., 2010). It is concerned with testing theories, validation and confirmation, whereas qualitative research is more focused on discovery and new perspectives to existing research (Munhall and Chenail, 2008; Weathington et al., 2010).

Qualitative data encompass an in depth understanding of human behaviour. The qualitative method investigates the why and how of decision making. Qualitative data recognize that some informants are "richer" than others and these individuals are more likely to provide insight and understanding for the researcher (Marshall, 1996). Qualitative research focuses less on numbers and frequencies and more on observations and detailed descriptions of a phenomenon (Weathington et al., 2010).

4.2.5 Case Study Approach

"A case study is an in-depth investigation of a single instance" (Sommer and Sommer, 2002, p203). A case study can range from studying a unit as small as an individual to as large as an entire community or region (Sommer and Sommer, 2002). Case studies allow the researcher to gain holistic and meaningful characteristics of actual real-life events (Yin, 2009, p4). Case studies "maintain the integrity of the whole with its myriad of interrelationships." (Sommer and Sommer, 2002, p203).

A case study recognizes that understanding is increased when the entire entity is considered rather than breaking it into parts (Sommer and Sommer, 2002). Some areas in which the case study approach is useful include: organizational and managerial processes, neighbourhood change, international relations and the maturation of industries (Yin, 2009; Sommer and Sommer, 2002). Case studies, although single events with unique circumstances, when combined, provide a look at behaviours in different geographical boundaries and time periods. Many case studies can help significantly contribute to important discoveries (Sommer and Sommer, 2002).

4.3 Research Approach

The following section discusses research approaches that were used in this study based on the literature review and appropriate methodologies for this study.

4.3.1 Multi-Method Approach

In light of the benefits of the multi-method approach, the review of similar studies, and the goals as introduced as objectives of this research, two methods were most appropriate: interview and observation. Observations helped support the interview questions and also provided an initial cultural and local understanding of the area, as research in this geographical location is lacking; existing data on the cultural and local norms in Gili Trawangan were not very comprehensive.

4.3.1.1 Semi-structured Interview

Based on the literature review, a semi-structured interview was the most appropriate style to be applied. Semi-structured interviews have been widely applied to similar research as previously discussed. Higginbottom and Scott (2008), Campbell and Smith (2006), Hardy and Beeton (2001), and Selin and Chavez (1995) all used a semi-structured interview to gain an understanding of stakeholder perceptions in either wildlife tourism or stakeholder collaboration in tourism. In addition, Grimble et al., (1995) provided a strong method for stakeholder approach, and they expressed that based on their research, a semi-structured interview yields the best results for obtaining stakeholder perceptions.

As previously mentioned, semi-structured interviews may be necessary in interviewing individuals from various backgrounds. This is important in terms of the research for this study. Interviewees were of differing cultural, religion, age, sex and social backgrounds. Their individual needs were considered to help the interview process be a success. Tourists from various parts of the world with unique knowledge and interests were interviewed, and thus the interviewer was able to consider individual circumstances when required.

Open-ended questions were used, and therefore responses have the potential to be an underestimate of actual stakeholder thoughts. Interviewees were not provided with a list of possible responses, but asked to identify various factors throughout the interview. Therefore, some factors may have been missed by the interviewee at the time of the interview. As such, there may be an underestimate in the number within some responses in the study due to open ended questions.

In order to help ensure successful interviews, the interviewer was aware of the limitations previously discussed. In addition, observations helped support interviews throughout data collection. Over the six week collection period, the researcher was able to observe actual stakeholder behaviours and therefore information does not only rely on stakeholder interviews.

4.3.1.2 Casual Observation

Observation helps to set the scene for interview questions. Causal observations allowed the researcher to see firsthand how tourism, collaboration, and sea turtle conservation were linked in Gili Trawangan prior to being informed by others through interviews. Casual observation was the initial research method used to ensure predetermined questions for the interview were appropriate. It allowed the researcher to see the diversity of the population on the island. Lastly observations were important in allowing the researcher to gain an understanding of local practices, and a base of knowledge prior to commencing interviews.

In order to ensure the observations were accurate, two researchers (Lacey Willmott and Allison McCabe) observed the same situations, and reviewed their observations afterward to ensure that they were compatible as recommended by Sommer and Sommer (2002, p 54). Four days were allotted to observation. Casual observation included each observer to walk the perimeter of the island once. The main tourist village on the south east side of the island was where the vast majority of restaurants, accommodations and tourist activities (dive shops and other tour operations) were located. The west side of the island was largely undeveloped, and the north had a limited number of accommodations, restaurants and tours. Therefore, in addition to a perimeter walk of the island, observations were focused on the south east side of the island. Observations intended to understand the schedules of various stakeholder

groups (when tours go out, from where, for how long) in order to see when and where interviews would be most suitable. Understanding the schedules of the stakeholder groups allowed for the researcher to approach interviewees at acceptable times that coincide with their natural schedules.

Both researchers independently observed on different days: two days for each researcher. Notes were taken to ensure that data was properly recorded. After the four days of observation researchers compared notes from their observations and had very similar results. Based on Sommer and Sommer (2002) the result of similar observations between researchers helps to justify what was observed.

In addition to casual observation to help set the scene for interviews, casual observation was also used as a method to observe the island throughout the data collection period. Casual observation is often combined with interviews to observe actual actions which may not be accurately reflected in an interview (Sommer and Sommer, 2002). Casual observation took place whenever interviews were not being conducted on the island. A lot of casual observation was centred on the turtle hatchery and dive or snorkel tours to gain an understanding of how various stakeholder groups were involved with the project and if interview responses were accurate. Notes were taken while observations were being conducted or directly after to ensure properly remembered information.

4.3.2 Qualitative Research

This study's main goal was to gain an understanding of stakeholder perceptions. It is less concentrated on how many respondents express certain responses and more on what they perceive. Therefore, this study used qualitative research to gain insight into stakeholder perceptions and examine an opportunity for stakeholder collaboration to promote conservation.

4.3.3 Case Study Approach

This research focuses on obtaining information regarding barriers and influences to stakeholder collaboration to promote conservation through sea turtle tourism, selecting a particular area in which to focus the research was beneficial. Using the case study approach allowed the research to be applied to a unique setting. Gili Trawangan had a rapidly developing tourism industry that relies on sea turtles which are a globally endangered species. As such, the setting allowed for an ideal opportunity to understand stakeholder collaboration to promote conservation in a small island. This approach stresses the unique characteristics and perspectives of participants and the setting (Sommer and Sommer, 2002).

4.4 The Research Process

This section outlines methods used during each phase of the research process. Figure 4.1 presents each phase of the study.

Figure 4. 1: Phases of the Research Process

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│   ┌───────────────────────────────────────────┐      │
│   │   Phase 1: Literature Review              │      │
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│   ┌───────────────────────────────────────────┐      │
│   │   Phase 2: Development of Interview        │      │
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│                      ▼                               │
│   ┌───────────────────────────────────────────┐      │
│   │   Phase 3: Stakeholder Identification Methods │   │
│   └───────────────────────────────────────────┘      │
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│   ┌───────────────────────────────────────────┐      │
│   │   Phase 4: Primary Data Collection         │      │
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│   │   Phase 5: Data Analysis                   │      │
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│   │ Phase 6: Discussion, Recommendations and Conclusions │
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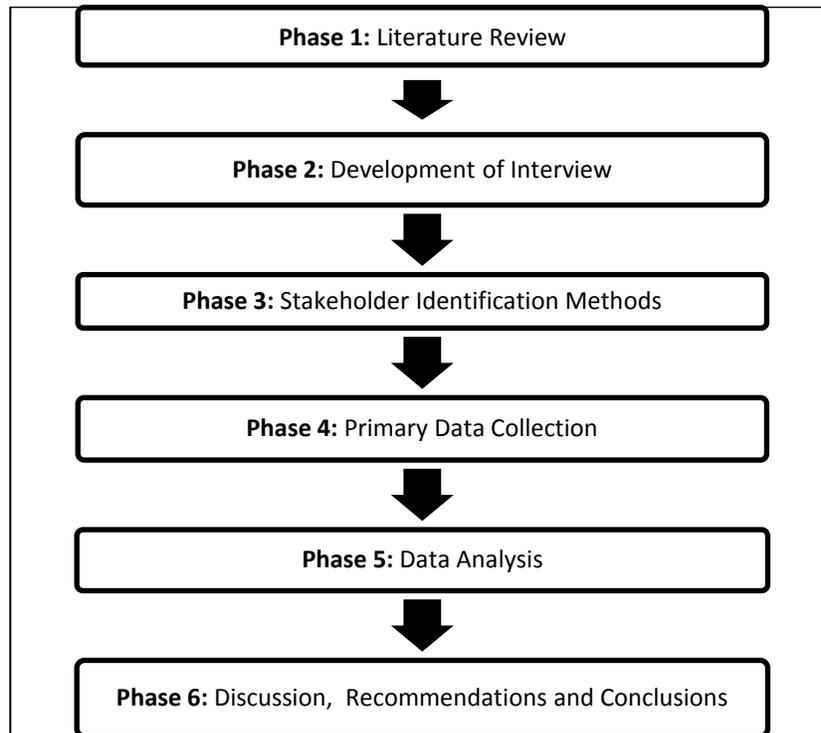
4.4.1 Phase 1: Literature Review

The first phase of the study consisted of an in depth review of the literature focusing on sustainable tourism development (especially in small islands), and sea turtle tourism best practices. A literature review is imperative to conduct prior to collecting primary data, as it allows the researcher to deepen their understanding on the study topic. It familiarises the researcher with historical and current research on the topic and allows the researcher to understand where and how their study fits in the subject at large (Sommer and Sommer, 2002).

The literature review included rigorous analysis of past research in order to help determine gaps in literature, objectives, theories or approaches to examine, and appropriate methods for this study. Peer reviewed journals were the prime source of literature that was examined, alongside books and informative internet sources including government and nongovernmental organization documents.

The literature review was primarily conducted in the winter and spring of 2010 and has been updated on a continuous basis until the final stage of this study.

4.4.2 Phase 2: Development of the Interview

The second phase in this study involved the development and piloting of the semi-structured interview questions which were designed based on research from the literature review.

The main purpose of the semi-structured interview was to gain a deep understanding of stakeholder perceptions on various aspects of stakeholder collaboration including: goals, values, interests, networks, leadership, and incentives.

Themes for interview questions drew strongly from the literature review. The questions were largely based on obtaining stakeholder perceptions based on Selin and Chavez's (1995) model in relation to sea turtle tourism and conservation on Gili Trawangan. Stakeholders were questioned about the importance of sea turtles in order to determine their connection with sea turtles and how they related to their livelihood, as explored in the Sustainable Livelihoods Approach section of the literature review. In addition, interviewees were questioned about development on the island, which related to Butler's model. Research on sea turtle tourism best management practices were incorporated into the interview through questions regarding stakeholder collaboration and interest. Interviewees were asked if they could identify any possible barriers in the success of implementing these practices, or any incentives that may help attain them.

In addition to Selin and Chevez's model, areas identified in the literature to gather information from stakeholders included: their use of the resource, their views on other stakeholders' use of the resource, the position, interest, influence, interrelations, networks, and other characteristics of stakeholders (past, present, future) (Grimble et al., 1995; Brugha, 2000; Booher and Innes, 2002; Healey, 1992; Forester, 1994). Indirect investigation or observation also helped provide support on if stakeholders' interests reflect their behaviours.

General themes that were covered in the interviews included: the importance of sea turtles and tourism in Gili Trawangan; the importance of sea turtle conservation; existing networks or partnerships on the island. Please see Appendix B for the interview guide.

The first section of the interview aimed to gain an understanding of how stakeholders perceived the importance of tourism and sea turtles. Stakeholders were also asked to discuss the development of the tourism industry on the island and how it had changed over time.

In the second section, stakeholders were questioned about sea turtle conservation and whether they believed that sea turtle conservation was important for tourism on the island, or to them. This section included questions on barriers and incentives to sea turtle conservation and whether the respondent thought that conservation required the involvement of multiple stakeholder groups, or could be accomplished by one group. Next, stakeholder identification or consensus was explored.

The last section of the interview focused on networks. Respondents were questioned about any past or existing networks on the island. They were also asked about leadership and interest in stakeholder collaboration on the island. This section also discussed barriers, incentives, benefits and the reality of multi-stakeholder collaboration to promote conservation in sea turtle tourism.

4.4.2.1 Piloting the Interview

Piloting took place with two individuals who were not stakeholders in Gili Trawangan, but had an in-depth knowledge of the area. One individual was Indonesian and lived in nearby Lombok. This individual is a sea turtle conservationist and a professor at a nearby University in Bali. The other individual was the past Environmental Coordinator in Gili Trawangan. Both were therefore very knowledgeable about the island, its culture, sea turtles and tourism on the island. They both were chosen because of their representativeness of potential participants in the study.

Pilot studies carried out prior to the execution of interviews helped detect ambiguous, misleading or irrelevant questions, or questions that might have been misinterpreted or confusing to the interviewee.

Conducting a pilot study of the interview was beneficial because it helped identify some potentially confusing or irrelevant questions. Minor changes were made to the interview, mainly ensuring that words used were simple to avoid confusion and misunderstandings. The order of some of the questions was changed, but no major content changes were made. The pilots were conducted in May 2010.

The pilot study helped to confirm that the interview would sufficiently obtain appropriate information for the study. In addition, the pilot study helped to determine the length of time that would be required of study participants. The interviewer audio recorded the pilot studies. The responses obtained from the pilot studies were not used as interviews in the study because the study focused on current stakeholders.

4.4.3 Phase 3: Stakeholder Identification Methods

The third phase of the research consisted of identifying stakeholder groups. This study used multiple methods to help identify and ensure stakeholder groups were included. Stakeholder groups were first identified based on the literature review (Freeman, 1980; Sautter and Leisen, 1999; Choi and Eckert, 2009; Higginbottom and Scott, 2008; Hardy and Beeton, 2001) and then customized to the island of Gili Trawangan. For example, the literature expressed that tourism organizations are a stakeholder group for this type of study; however, this case study does not include this stakeholder group, as no tourism organizations existed on the island. The presentation and definitions of each stakeholder group for this study were presented in Chapter 3..

The next step in stakeholder identification followed the reputational approach to stakeholder identification as outlined by Grimble et al (1995). Following the reputational approach, the head of Gili Trawangan, and the head of the Ecotrust were both initially asked to identify groups they believed to have a stake in collaboration to promote conservation in sea turtle tourism. The head of the island is recognized on the island as an important individual, while the head of the Ecotrust is recognized as a knowledgeable individual.

The reputational approach did not introduce any bias because all interviewees were further asked to identify stakeholders, or if they agreed with the list of stakeholders, as this was a requirement to help determine if there was a general consensus on stakeholders as in Selin and Chavez's (1995) problem-setting phase in their tourism partnership model.

These methods are important for a non-local researcher. They have various strengths and weaknesses and together they ensured that all stakeholder groups on the island were identified and included in the study.

4.4.4 Phase 4: Primary Data Collection

The fourth phase of the research consisted of primary data collection. During this phase, stakeholders were approached and asked to complete the interview. This phase occurred between May 20th and July 1st 2010 in Gili Trawangan, Indonesia.

4.4.4.1 Sampling Method

Purposive sampling is a nonprobability sampling method, and specifically allows the researcher to use their judgement to target individuals who are thought to be of relevance to the research question (Altinay and Paraskevas,

2008; Sommer and Sommer, 2002). Purposive sampling of stakeholders essentially means that the researcher is not required to randomly sample the entire population, but target necessary groups or individuals (Altinay and Paraskevas, 2008; Sommer and Sommer, 2002).

Purposive sampling allows the researcher to reduce the number of potentially non-imperative interviews. In addition this type of sampling allows the interviewer to conduct a large number of significant interviews within a limited time line. Snowball sampling within purposive sampling ensures that the interviewer is finding appropriate subjects to interview, and that the interview process is not simply based on the interviewer's judgement alone. Purposive sampling was used in Hardy and Beeton's (2001), and Higginbottom and Scott's (2004) methodologies for obtaining stakeholder perceptions.

Forty eight interviews were conducted in Gili Trawangan. Equal stakeholder group representation in terms of a percent or number was not realistic. For example, there were only three regulators in Gili Trawangan: the head of the island, the head of all three Gili Islands, and Satgas (the local marine security/police); however, there were hundreds of tourists. Nonetheless, numerically equal representation of each group is not a requirement of qualitative research.

Snowball sampling is a particular type of purposive sampling whereby interviewees are asked to refer the interviewer to other candidates to interview (Altinay and Paraskevas, 2008; Sommer and Sommer, 2002). It is normally used in research situations where appropriate candidates are difficult to locate, as in Gili Trawangan where little research has been done (Altinay and Paraskevas, 2008).

The island was so small that interviewees knew of other local stakeholders with important information that the interviewer needed contact. Snowball sampling was necessary to interview the local population, regulators, and educators. The local community was divided into seven geographical areas with a head (named an "RT") of each area. The "RT's" act as the link between the regulators and the local community on the island and are all established members of the community of Gili Trawangan. "RT's" are further discussed in Chapter 5. Two out of seven "RT's" were interviewed in order to ensure that knowledgeable locals were interviewed. Some were unable to speak enough English to participate but helped to identify other potential participants.

4.4.4.2 Demographic and Other Considerations

Demographic considerations within purposive sampling allowed the researcher to interview a wide array of individuals within a stakeholder group. For example, the tourist stakeholder group had a large population of potential participants; therefore it was necessary to ensure diversity among individuals of this group. Demographic considerations were used as a method to ensure appropriate spread of tourists. Demographic considerations included: age range, sex, and continent of origin.

Various types of operators were included in the study, including: dive shops, accommodations, restaurants, tour operators. In addition, locally owned and expatriate owned operations were considered along with the size of the operation as they ranged from small stands to large resorts. Therefore, the researcher ensured that large luxury resort style accommodations were included as well as midsize or small bungalows, and various sized tour operations.

4.4.4.4 Method of Contacting Stakeholders for Interviews

Due to the size of the island, the researcher sought out interviewees in person and requested to set up an interview at a time and location of the interviewee's choice. This allowed the interviewee to feel comfortable throughout the interview process. Interviewees were verbally asked if they would be willing to participate in an interview. All methods of contacting interviewees were approved by the Ryerson University ethics board, and followed diligently.

Tourists were approached throughout the day based on demographic considerations. Observations prior to conducting the interviews helped the interviewer decide when and where it would be appropriate to approach potential interviewees.

4.4.4.5 Sample Size

There is no specific size of sample required to justify qualitative research. An appropriate sample size for a qualitative study is one that adequately answers the research question (Marshall, 1996). This being said, it is important to ensure adequate representation of each stakeholder group (Ritchie and Lewis, 2003). The sample size depends on the quality of responses obtained, population size of each stakeholder group, available resources, time constraints, and subcategories of each stakeholder group (e.g., stratification). Qualitative studies usually require between 50-80 interviews (Ritchie and Lewis, 2003). However, this depends on the exact study taking place. Large studies with many subgroups and categories require more interviews (Sommer and Sommer, 2002; Ritchie and Lewis, 2003).

Interviews in Gili Trawangan were conducted until there were no more possible stakeholders within the group to interview (Regulators, all individuals working directly for an Environmental NGOs), or when there was clear repetition in responses within each group (tourists, local population, educators). The latter part is known as the information saturation point in qualitative research and helps to justify the sample size. When each stakeholder group's responses became repetitive within their group in Gili Trawangan and new perspectives did not seem to be emerging, the researcher judged to be near saturation point and continued interviews until repetition was clear per group. In addition, information saturation can be justified if the researcher feels that no new findings are taking place, and also that if they stay any longer in the setting that they may lose their researcher perspective (Hesse-Biber and Leavy, 2006).

It is important to note that stakeholder approach does not value any one stakeholder group more than another; therefore, no singe stakeholder group was concentrated on. All groups were considered equally important.

4.4.4.6 Data Recording

Audio recording was used whenever permission was granted by the interviewee, which was the vast majority of the interviews. This method was used in all methodologies regarding obtaining stakeholder perceptions including: Hardy and Beeton (2001), and Higginbottom and Scott (2001). Audio recording was beneficial because it allowed themes to emerge throughout the coding process as opposed to fitting responses into predetermined categories based on literature. In addition, it was important that very efficient transcriptions of each interview were taken in order for the analysis to work effectively and determine accurate themes.

Notes were handwritten by the interviewer whenever audio recording was not accepted by the interviewee. This occurred in a very limited number of interviews. This option allowed the interview participants to feel comfortable. Immediately following each of these interviews, the researcher transcribed the interview notes to ensure properly remembered data from interviews.

4.4.5 Phase 5: Data Analysis

The transcribed interview responses were analyzed through highlighting key themes using a coding method. "A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldana, 2009, p3).

Lengthy responses were condensed and categorized. This form of data analysis requires reading transcribed interviews and grouping themes and words (Sommer and Sommer, 2002). "Just as a title represents and captures a book or film or poem's primary content and essence, so does a code represent and capture a datum's primary content and essence" (Saldana, 2009, p3).

Each interview response was first organized by interview question using Microsoft Excel. The responses were then condensed and placed into categories. Frequency tables were then created as a way of demonstrating how respondents responded to various questions.

In addition, all interviews were further read entirely to allow common themes to emerge. Common themes were identified in a separate spreadsheet and a frequency tally of which stakeholders responded in such a way was noted. The result of this type of coding allowed for a clear comparison of common themes among and between stakeholder groups.

Overall, the analysis of the qualitative data enabled the emergence of key influences in stakeholder collaboration. The data analysis phase took place between August 2010 and February 2011.

4.4.6 Phase 6: Discussion, Recommendations and Conclusions

The final stage of the study involved identifying and discussing the key findings of the research. The study revealed major influences and barriers to stakeholder collaboration to promote conservation in sea turtle tourism. The influences and barriers then helped to formulate practical recommendations that can be applied to help stakeholder collaboration to promote conservation in sea turtle tourism. The final phase of the study occurred between March and June 2011.

4.5 Limitations

There are a few limitations faced in this study methodology. Great efforts were made to attain detailed responses from participants, as well as a high response rate. The following are potential limitations to the study.

4.5.1 Cross Cultural Research

In cross-cultural qualitative research, it has become increasingly recognized that the way in which a researcher understands the social world can affect how information is produced and interpreted by the researcher (Hsin-Chun Tsai et al., 2004, p6). In addition, trustworthiness of the researcher may be a limitation to obtaining some data in cross-cultural research (Hsin-Chun Tsai et al., 2004). Interpretation of findings can be affected by the

researcher's background, experiences and ideologies as well as their knowledge of the cultural context of the research setting (Graci, 2008b; Holliday, 2002; Hsin-Chun Tsai et al., 2004).

The nature of the study was not overly sensitive (like studying personal health), as such, trustworthiness was not a prime limitation. In addition, the researcher made a point of gaining an understanding of the local community through casual and frequent conversations with local residents, beyond research interviews. As such, over time the researcher obtained a level of understanding about the island, the community, culture, and history that was not available prior to arrival through the literature review.

4.5.2 Cultural Constraints

In Gili Trawangan the role of females is largely to take care of their families. As such, many older females lacked in education and the ability to speak enough English to participate in the study. Beyond the ability to speak English, women are very difficult to talk to, as they are mostly in their homes which are very secluded on the island, or involved with the kindergarten or mosque. Females in general were difficult to contact for an interview, but older females were nearly impossible to contact or had the ability and willingness/time to participate in the study. Beyond females, the older population on Gili Trawangan also lacked some ability to speak English.

4.5.3 Small Community Constraints

The community of Gili Trawangan is very small, and this research aimed to gain an understanding of true stakeholder perceptions of potentially sensitive subjects including: networks, leadership, and current practises on the island. As such, some interview respondents may have felt slightly uneasy in sharing negative perceptions in fear that their expressed perceptions may eventually cause unrest in the small community.

Conversely, it was made extremely clear to all respondents that the interview was completely anonymous and no personal identification was required for participation. In addition, the fact that the researcher was not a member of the community was seemingly beneficial, as a certain level of distance between the researcher and participant seemed to allow the vast majority of respondents to comfortably share actual (negative and positive) opinions and perceptions.

4.5.4 Interview Bias

Interview bias is a possible limitation to this study. The interviewer tried to avoid obtaining socially desirable responses and ensure that participants trusted and felt comfortable expressing their true views in the confidential and anonymous interview. In addition, questions were asked in a variety of ways to ensure consistency in responses. For example, interviewees were asked why they believe that tourists currently come to the Gili Trawangan. Next they were asked how the marine environment comes into play regarding tourism in Gili Trawangan. These questions both are worded differently but essentially seek to understand if the marine environment plays a key role in tourism. The first question is more open ended than the second which allows responses to remain unbiased.

Audio recording also helped to minimize interview bias, as everything that respondents said was recorded, transcribed and used in the analysis instead of relying on notes taken by the interviewer. Audio recording uses all

data whereas note taking may miss some points and interviewers may inadvertently miss relevant data that they may not consider important.

The interviewer attempted to ensure that the interview was developed, conducted, recorded and analysed in an unbiased method to yield high quality results.

4.5.5 Time

The researcher was on the island of Gili Trawangan for six weeks. The research was conducted during high season in the hopes of obtaining the maximum number of stakeholder interviews with knowledgeable participants. Despite efforts, some informative stakeholders, including business owners and regulators were not ever on the island during data collection. Due to the stage of development in which Gili Trawangan is currently, many owners of local operations do not live on the island and therefore were unable to participate in the study. In addition, the Indonesian government was preparing for elections, as such, the head of the Satgas on Gili Trawangan was occupied in Lombok throughout the duration of the data collection period. Nonetheless, all stakeholder groups were included in the study and informative respondents participated in the study.

4.6 Conclusion

This chapter outlined the methods used to collect and analyze data to explore an opportunity for stakeholder collaboration to promote conservation through sea turtle tourism. Even with the potential limitations that were discussed, the study gathered crucial information regarding stakeholder collaboration relating to sea turtle conservation. The next chapters discuss the analysed information, key results and recommendations.

Chapter 5: Data and Analysis

This chapter presents the data obtained through stakeholder interviews. It explores stakeholder perceptions regarding sea turtle conservation and tourism in Gili Trawangan, Indonesia. Barriers, motivations, leadership, and general stakeholder perceptions about sea turtles and their importance are analysed to understand any opportunity for partnerships in this industry. The chapter is divided into four main sections: 1) demographics, 2) stakeholder perceptions, 3) current networks, leadership and practices, and 4) management strategies. This chapter satisfies the second objective of this thesis and forms the basis for the discussion chapter (Chapter 6).

As discussed in Chapter 2, many studies have demonstrated that collective and organizational goals, a common or differing interest or vision, and factors outlined in Selin and Chavez's (1995) tourism partnership model are all factors that may influence partnership formation and development. In the following sections, these factors are explored in relation to stakeholder collaboration to promote conservation.

5.1 Section One: Demographics

Interview participants encompassed a wide array of backgrounds and therefore offered unique values, knowledge and perspectives. This study aimed to obtain perspectives of a variety of stakeholders within each group. A breakdown of the general demographics of study participants is presented in this section. Table 5.1 presents the number of the interviews from each stakeholder group. Following this section, each stakeholder group will be further discussed individually.

Table 5. 1: The Frequency of Interviews from each Stakeholder Group

Stakeholder Group	Frequency
Operator	18
Local	13
Tourist	10
Regulator	3
Educator	2
ENGO	2
Total	48

n=48

The majority of respondents were operators, then locals, tourists, regulators, educators and ENGOs. The varying number of interviews is reflective of many factors, mainly: the actual size of the entire stakeholder group, and the number of subdivisions within each stakeholder group. Each stakeholder group and their participation in the study will be discussed.

5.1.1 Operators

This study ensured that the research encompassed participants from: a wide variety of operations, varying levels of management, and differing ownerships (locally vs. non-locally owned businesses). The operator stakeholder group was divided into several specific operations that were found on the island. The breakdown of respondents of the interviews from each of these groups is presented in Table 5.2.

Table 5. 2: Number of Respondents from Each Type of Operation Involved in the Study

Type of Operator	Frequency
Dive Shop	6
Accommodation	6
Fast Boat Operator	2
Restaurant	2
Tour Operator	2

n=18

Within the operator stakeholder group, dive shops, accommodations, fast boats, restaurants, and tour operators were all included. Dive shops and accommodations were most frequently interviewed because, based on observation and stakeholder discussion, they accounted for a larger number of operations on the island than the other operator stakeholders. For example, there were many more dive shops on the island than tour operators, and many more accommodations than fast boat businesses.

In addition to types of operations, it was ensured that expatriate-owned and run businesses participated as well as locally-owned and run businesses. Half of the operators interviewed were expatriates and half were Indonesian. Half of the operator respondents were locals of Gili Trawangan.

Within accommodations, large luxury resort style businesses were included and budget style bungalows also participated. Lastly, various levels of management were interviewed, including owners, managers as well as working staff (dive instructors, accommodation staff, tour sellers).

5.1.2 Locals

This study attempted to interview respondents of varying ages and sexes in the local population. Figure 5.1 depicts the assortment of local respondents.

Figure 5. 1: Age Groups and Number of Local Respondents
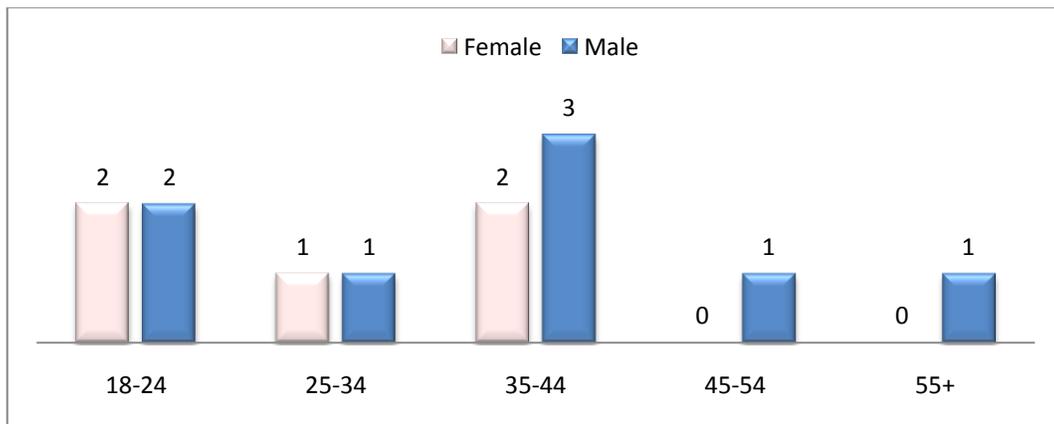
n=13

Local females in the higher age ranges were largely unavailable or unable to communicate effectively enough to obtain adequate data from the interview. Elderly local females in Gili Trawangan spent most of their time

in their homes caring for children and other family members, or were very involved with the mosque and preschool. Therefore they were largely unavailable. On the other hand, young locals of Gili Trawangan were generally able to speak English, and were excited to participate in the interview to practice their language skills.

Overall, five of the local respondents were female while the remaining eight were male. Females on Gili Trawangan were still leaving school early to have children and raise a family, and therefore it was more difficult to obtain female participants in general than it was to obtain male participants. Participation was obtained from each age range in the local population.

5.1.3 Tourists

Tourists were the least willing to participate in this study mostly due to the length of time it required. Older tourists especially with families were most unwilling to participate. This study aimed to ensure that participation included a variety of age ranges and continents where the trips originated. The large majority of tourists were from Europe, with a few from America and Australia/Oceania. As such the study aimed to include participants from these areas, and to ensure both sexes and a variety of ages.

Table 5. 3: Ages of Responding Tourists

Age	Frequency
19-24	4
25-34	3
35-44	2
45+	1
Total	10

n=10

Five tourists were female, five were male. Six tourists were from Europe, two from Australia/Oceania, and two were from America.

5.1.4 ENGO, Regulators and Educators

Due to the small size of Gili Trawangan, three stakeholder groups were very small: environmental NGOs, educators, and regulators. There were only two stakeholders in the ENGO stakeholder group, and both participated. Next, the regulator stakeholder group encompassed the head of the island, the head of the three Gili islands, and Satgas (the local police); all three participated. Lastly, the educator stakeholder group was also quite small. One longstanding educator, as well as a member of the academic administration both participated. Therefore, although interview numbers in these three stakeholder groups are small in quantity, they are complete.

5.1.5 Conclusion

This qualitative study considered various demographics within each stakeholder group to ensure that an inclusive sample of stakeholders and their perceptions was obtained. The next section of this study presents and analyses stakeholder perceptions.

5.2 Section Two: Stakeholder Perceptions

This section presents stakeholder perceptions regarding the importance of tourism to the island, the marine environment, sea turtles, and the urgency of sea turtle conservation on the island. The following sections present information and discuss themes found throughout the study. The importance of tourism in Gili Trawangan is first discussed, followed by the marine environment, and sea turtles.

For the purpose of this study, the term perception is used to represent stakeholder dispositions. Kurtz and Boone (1984) argued that the term perception refers to the meaning attributed to an object or subject while an perception represents an enduring predisposition or tendency towards a subject. Therefore, they argued, that the term perception is more appropriate to describe dispositions toward tourism because respondents are not referring to static and enduring predispositions, but of dispositions that change over time. It cannot be assumed that individuals hold beliefs or knowledge about the impact of tourism (Kurtz and Boone, 1984; Ap, 1992).

5.2.1 Tourism in Gili Trawangan

Tourism in Gili Trawangan has continued to develop since 1983 when the industry first began on the island. It began as a quiet tourism destination where small numbers of adventurous tourists went to explore and learn about the local island culture. Gili Trawangan has since transformed into a "trendy" destination that is economically reliant on tourism. Gili Trawangan lacks employment opportunities beyond the tourism industry.

5.2.1.1 Limited Opportunities beyond Tourism

Tourism is very important for Gili Trawangan's survival, as there was little else (fishing, farming) on the island. A local regulator expressed that tourism on the island was especially important and that without tourism the island's economy would breakdown (Interview #1, 2010). When asked how important tourism was to the island, all respondents perceived tourism as very important because it was the only way of living on the island. The majority of respondents specifically stated that without tourism there would be a lack of opportunities in general on the island.

Not only were the vast majority of jobs on the island dependent on the tourism industry, but the local high school also focused on training students for jobs in tourism. An educator stated that "senior high school [on Gili Trawangan] specializes in hospitality and tourism. So, all students graduate to work in tourism. If they have other interests, [they must] go to other places" (Interview # 41, 2010).

The close proximity of the bombings in Kuta (Bali) in 2002 tested the strength of the island's tourism industry. The island faced a decrease in tourist arrivals, and as a result was greatly impacted. Many businesses were forced to close. The owner of a dive shop who had been a local resident for more than a decade discussed the impact of the bombs in Bali.

> "We had the Bali bomb in 2002 and there were no tourists here at all and it was quite heart breaking for all the little places 'causethere was no money around at all. People started fishing again for something to eat. I think [since the bombings] all the things that they had on the island that made them prosperous before tourism has all stopped for the tourists. The whole island seems to be dedicated to tourism. So yeah, without the tourists I think it would have really bad effects" (Interview # 11, 2010).

Since the 2002 bombings in Bali, the tourism industry had recovered and the island had become increasingly dependent on the industry.

5.2.1.2 Tourism Development in Gili Trawangan

Tourism has grown and continued to grow at such a rapid pace on the island that stakeholders described differences in the tourism industry over time regardless of the length of time they had lived on the island. Unless tourists had previously visited the island, they were unable to describe changes in the industry and therefore were unable to respond to this question.

Table 5. 4: Changes in the Tourism Industry in Gili Trawangan as Identified by Interview Respondents

Respondent Interview Number	Changes in the Tourism Industry in Gili Trawangan
1, 2, 6 , 8, 13, 14, 15, 16, 17, 19, 22, 23, 24, 26, 27, 29, 30, 32, 33, 36, 37, 39, 45, 46	Increasing Number of Tourists
2, 6, 9, 11, 12, 13, 14, 16, 17, 20, 22, 23, 25, 26, 27, 30, 31, 35, 36, 37	Increasing Development
1, 8, 9, 11, 14, 16, 17, 22, 23, 27, 29, 31, 34, 35, 45, 46	Tourist Characteristics and Demographics
3, 11, 12, 19, 20, 24, 25, 30, 32, 33, 36, 37	Increased Numbers of People Coming and Looking for Work
8, 31, 35	Increasing Costs
20, 30, 34	Increasing Conflict
5,7,18,21,28,37,40,41,42,43,44,47 ,48,49,50,51	DK/NR

N = 48
DK/NR Did not know or No Response

Prime areas of change identified through stakeholder interviews included changes in: tourist arrivals, building development, tourist characteristics and demographics, tourism industry workers, and cost in general. An elderly local respondent's observation of the changing tourism industry since 1980 included a general increase in tourists, individuals arriving to search of employment, a high turnover of people on the island, and rapid development (Interview # 32, 2010). He explained that the island was changing every year. The following sections discuss the themes that emerged in the discussion regarding the tourism industry in Gili Trawangan.

5.2.1.3 Increasing Tourist Numbers and Development

The trend regarding the growth of the tourism industry, including increasing tourist numbers and increased development of accommodation and activities (dive shops, snorkelling adventures, restaurants, bars), was the most popular theme in this question. Increasing tourist numbers and overall development was identified many times by respondents (Table 5.4). One respondent, who owned a variety of accommodations on the island, from budget options to luxury villas, explained that they were still expanding building development: "we're going to be building another 12 villas just along the strip here. Growth here has been phenomenal, just phenomenal...Just incredible!" (Interview #16, 2010). Entire accommodations were observed being built from start to finish during the research trip.

An operator who had lived on the island for 11 years stated that the tourism industry on the island has grown rapidly. Six dive shops existed in 2000 and by 2010 there were at least 12 (Interview #11, 2010). In addition to more dive shops, dive operators were crowding their trips. Dive trips used to have a maximum of 40 divers and at the time of the study there was a 65 person limit. Lastly, dive shops also increased the frequency of their trips throughout the day and also included night dives (Interview #11, 2010). Increasing tourist numbers on the island were crowding many of the offered activities.

5.2.1.4 Changing Characteristics and Demographics of Tourists

Many (16 responses) respondents identified changing characteristics and demographics to describe the tourism industry. Tourist demographics have changed from mainly backpackers who stayed in budget accommodation to wealthier tourists traveling with babies and seniors who stay in luxury villas. The owner of several accommodations ranging from budget to luxury stated that "the demographic has changed too. It was very much backpackers, and you could say like 18s-32s...and because of the more sophisticated accommodation that's available now, you're getting older people and families with children" (Interview # 16, 2010). Although backpacker tourists were still prevalent, families with young children and seniors were frequently observed.

Negative changes in tourist perceptions were identified by a local respondent who felt that tourists had become increasingly disrespectful of the locals (Interview #34, 2010). A couple of locals expressed that it was evident that tourist characteristics had changed and continued to change from curious and adventurous to more anxious and non-adventurous (Interview # 30, 34, 2010).

5.2.1.5 Increase in Non-Local Indonesians and World Travelers Arriving in Search of Employment

Many other respondents (12 respondents) stated that Indonesians from around the country (mostly from mainland Lombok) as well as more international travelers were arriving in Gili Trawangan in search of employment. A large number of dive shop employees were not local residents, but world travelers, largely from Europe. This was evident through observation and interviews. An expatriate dive instructor explained why she decided to come to the island to work for the year: "it's supposed to be a really nice island...decent diving. I'd never heard of the Gilis before a few years ago. I just wanted to check it out" (Interview #5, 2010).

University graduates from nearby Lombok had a higher ability to speak English than the locals of Gili Trawangan. As a result, they were increasingly being hired over locals to work on the island (Interview # 5, 34, 2010). A local resident explained that some luxury accommodations on the island strictly hired workers from Lombok because their language skills were superior to locals (Interview # 34, 2010). Because of this, it was difficult for locals to obtain employment and earn money to live. Over time there has been a change in tourism industry workers on the island from locals to non-local Indonesians and international travelers.

5.2.1.6 Increasing Costs

A few respondents (an expatriate dive instructor, a local, and an ENGO) expressed the increasing cost of living in as a major change since their arrival on the island. An ENGO stated: "when I first arrived in 2004, [everything on the island] was so cheap, now it's insanely expensive" (Interview # 35, 2010). The dive instructor explained that "it used to be more backpackers and now we have also the very expensive rooms. And just the life is

three or four times more expensive than before. So there is less backpackers and more big tourism of families. And before we used to have a low season, now it's not existing... we have people all the time" (Interview # 8, 2010).

5.2.1.7 Increasing Conflict

A few respondents identified increased conflict between businesses (Interview # 20, 2010), locals and tourists (Interview # 34, 2010), and conflicts related to increasing drug abuse on the island (Interview # 30, 2010) as changes to the tourism industry. Due to tourist perception changes, conflict had increased between locals and tourists. A local explained that "there used to be a lot of backpackers who were nice and wanted to talk to us. We [used to] have beach party and cook fish on barbeque. Now changing, when we say "hi" to tourists [which is a cultural norm] they think we want something from them. I just like to talk, but not threaten" (Interview # 34, 2010). Another local stated that tourists were increasingly trying to steal from the island (Interview # 30, 2010). Based on personal observations, tourists were seen attempting to intentionally leave the island early in the morning without paying for their accommodation. Changing tourist characteristics seemed to be contributing to conflict with locals, while other types of conflicts were also increasing between other stakeholder groups.

5.2.1.8 Stage of the Life Cycle

The changes expressed by stakeholders in this section seemed to link very closely to Butler's Life Cycle Destination Model (as introduced in Chapter 2). The responses helped to identify that Gili Trawangan appeared to be within the critical stage of elements of capacity. The island remained in the consolidation phase, as development continued to expand. Tourism was the dominant economic force on the island and international visibility continued to increase. Infrastructure on the island had increased and had catered to the demands of tourists (e.g., luxury villas, freshwater access, swimming pools, and air conditioning). The local community's participation in the tourism industry seemed to be declining while tourists were also beginning to disturb the local community.

5.2.2 Why Tourists Visit Gili Trawangan

There were numerous tourist attractions identified by respondents. The marine environment was identified as the largest attraction. Table 5.5 presents the reasons that tourists visited Gili Trawangan (rows) as identified by stakeholder groups (columns). The table presents responses by stakeholder group to allow for the comparison of responses among groups.

Table 5. 5: Reasons Identified by Stakeholders as to why Tourists Visit Gili Trawangan

Attraction	Frequency						
	Regulator	Operator	Tourist	Local	ENGO	Educator	Overall Total
Marine Environment	**3**	13	**9**	**13**	**2**	**2**	**42**
Island Paradise	0	**14**	5	11	1	2	**33**
To get away from Bali and Lombok	0	5	1	1	0	1	**8**
People	2	2	0	3	0	0	**7**
Accessibility	0	3	0	0	0	0	**3**
Other	0	1	1	0	0	0	**2**
Number of Respondents	3	18	10	13	2	2	

n = 48

"Marine environment" included responses describing the ocean (e.g., crystal clear water, blue water, warm water), the marine life (e.g., coral, fish, turtles), and any marine activities (e.g., diving, snorkelling, glass bottom boat tours). "Island paradise" was a descriptive word often used, and therefore created into a category encompassing: no motor vehicles, beautiful white sandy beaches, relaxation factor, isolation/solitude, sun, and views. Some respondents believed that tourists visited Gili Trawangan to escape the busyness and crowds of Bali or Lombok. Next, the people of Gili Trawangan were mentioned as an attraction to the island. This category covered characteristics of the people on the island including: friendly, family-like, and funny. Accessibility to the island had increased significantly over the years (from a lengthy ferry ride to a one and a half hour speedboat). As such, some respondents saw this increase in accessibility as an attraction for tourists.

Respondents viewed the marine environment as the largest attraction for tourists visiting the island. In fact, operators were the only stakeholder group that did not rank the marine environment as the largest attraction. Instead they expressed island paradise as the main draw. Overall, there was a fairly large consensus that the marine environment was the main attraction for tourists, followed by the island paradise environment that the area offered.

5.2.3 The Marine Environment in Gili Trawangan

This section explores respondents' perspectives on the importance of the marine environment to both themselves and directly to tourism on the island. This section aimed to understand if stakeholders had common or differing interests and if they shared a common vision. The section revealed that stakeholders overall believed that the marine environment was more important to tourism directly than it was to themselves or their stakeholder group.

5.2.3.1 Importance of the Marine Environment to each Stakeholder Group

Table 5.6 presents the results of the importance of the marine environment to each stakeholder group.

Table 5. 6: The Importance of the Marine Environment to each Stakeholder Group

Stakeholder Group	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree	DK/NR	Total Responses per stakeholder group
The Marine Environment is of Great Importance to [Each Stakeholder Group]							
	Frequency						
Regulator	0	0	0	0	**3**	0	3
Operator	0	0	2	3	**12**	1	18
Local	0	0	1	2	**6**	4	13
ENGO	0	0	0	**1**	**1**	0	2
Tourist	0	0	1	4	**5**	0	10
Educator	0	**1**	0	**1**	0	0	2
Total	0	1	4	11	**27**	5	48

N=48
DK/NR Did not know or No Response

Those that agreed and strongly agreed that the marine environment was of great importance to their stakeholder group made up the majority of responses (38 of 48 responses). Overall, there seemed to be a strong recognition that the marine environment was very important to each stakeholder group. However, within certain groups there was a range of perceived importance. The responses to this question seemed to depend on the direct use of the marine environment by the respondent. Dive operators agreed more with the statement that the marine environment was of great importance to their operation than did restaurant owners. Beyond the marine environment as a business resource, some respondents also linked the importance of the marine environment to their livelihood in the open ended questions. The following sections discuss the various perceptions revealed through this question: the marine environment as a business resource, the marine environment for local livelihood, and the marine environment as little overall importance.

5.2.3.2 Dependency on the Marine Environment for Business

Respondents that worked directly with the marine environment placed a higher level of importance on it than did respondents with little direct contact with the marine environment. Most respondents (27 out of 48) strongly agreed that the marine environment was of great importance to their stakeholder group. Many additional (15 respondents) respondents somewhat agreed or agreed that the marine environment was of great importance to their stakeholder group. Almost all respondents (42 out of 48) somewhat agreed that the marine environment was of great importance to their stakeholder group.

Many respondents that agreed and strongly agreed tended to have a direct dependency on it as a resource. For example, operators on the island that relied directly on the pristine marine environment for their business placed a high level of importance on this resource. A dive instructor stated that "without [the marine environment] we wouldn't have a business!" (Interview #5, 2010). Another dive shop similarly stated that "without the marine environment, well, we wouldn't really be successful at all" (Interview #6, 2010).

Even those not completely dependent on the marine environment for business (like accommodations) used the resource as a marketing tool to help draw tourists to their business. Therefore, some were able to see its importance to their business. An owner of a small accommodation explained that the marine environment was important to them "because of our location. We market ourselves as a beachfront boutique bungalow...Snorkelling is the best out front here" (Interview # 17, 2010). With a destructed marine environment, operators would lose a marketable feature to attract tourists. In the future, this could lead to overall declines in business.

5.2.3.3 Dependency on the Marine Environment for Livelihood

Another reason why the marine environment was considered important was because of its link to the local livelihood. Many locals stated that they understood that their livelihood depended on the marine environment because it attracted tourists while allowing them (the locals) to maintain employment. Some respondents (most of whom were locals, one a regulator, and the other an Indonesian tour operator) directly expressed that locals understood that they needed to preserve the marine environment. They realized that it was a prime attraction for tourism which was the foundation of their economy (Interview # 3, 20, 23, 28, 30, 37, 2010). A local explained that the marine environment was "important because almost all local people work in tourism. Without the marine environment, [there would be] no jobs" (Interview #28, 2010). Therefore, although locals may not have depended on the marine environment in the same way as many owners of operations on the island, they recognized that the marine environment was the resource on which their future employment depended.

5.2.3.4 Little Importance of the Marine Environment

Respondents who were not directly linked to the marine environment for business or for their own livelihoods placed little importance on this resource to themselves. Fast boat operators that focused on transporting tourists to and from nearby Bali and Lombok, restaurants, and some accommodations perceived the marine environment as not very important to their operations. An employee of a fast boat company on the island, and an owner of a restaurant both expressed that the marine environment was not very important for their business at all (Interview # 13, 22, 2010). This is likely because they did not rely directly on the marine environment for their sales.

Beyond operators, an educator also placed little importance on the marine environment. An educator stated that the marine environment had little importance to the education system on the island (Interview # 41, 2010). They explained that the education system focused little on environmental education. As previously mentioned, education in Gili Trawangan specialised in training students to work in the Hospitality and Tourism industry, but lacked a direct link to the environment (Interview # 41, 2010). As such, the respondent did not perceive the marine environment to be overly important to education on the island. An individual from an ENGO stated that "in the [Indonesian] culture and the education and things like this, they don't really think further than tomorrow, sometimes further than the next minute" (Interview # 35, 210). So the environment may not be considered extremely important for the educational system on the island. Educators were more focused on their ultimate goal of having students prepared for employment.

The respondents who placed little importance on the marine environment may suggest that education regarding tourism and sustainability in general could have been lacking. An increase in knowledge that links tourism and livelihoods to the resources that are attracting tourists to this destination is critical. Without this type of

knowledge, some stakeholders could place too little value on the marine environment, consequently risking their future on the island. The education system played a key role in educating children and families on the island. The fact that educators placed little importance on the marine environment is an important finding.

5.2.3.5 Summary

The marine environment was found to be important for different reasons among stakeholder groups. Overall, even with a few stakeholders who perceived the marine environment as unimportant, stakeholders in Gili Trawangan generally perceived the marine environment to have a high level of importance to their stakeholder groups for varying reasons ranging from a business resource to a resource for their livelihood.

5.2.4 Importance of the Marine Environment to Tourism in Gili Trawangan

Next, respondents were asked to explain the importance of the marine environment to tourism in Gili Trawangan. Table 5.7 presents results from each stakeholder group along with a total in the bottom row.

Table 5. 7: The Importance of the Marine Environment to Tourism as Identified by each Stakeholder Group

The Marine Environment is of Great Importance to Tourism in Gili Trawangan							
Stakeholder Group	**Frequency**						
	Strongly Disagree	**Disagree**	**Somewhat Agree**	**Agree**	**Strongly Agree**	**DK/NR**	**Total Responses**
Regulator	0	0	0	0	**2**	1	3
ENGO	0	0	0	0	**2**	0	2
Local	0	0	0	2	**7**	4	13
Operator	0	0	0	4	**13**	1	18
Educator	0	0	0	**1**	**1**	0	2
Total	0	0	0	7	**25**	6	38

N=38
DK/NR Did not know or No Response

These results demonstrated that although not all stakeholder groups strongly agreed that the marine environment was of great importance to their stakeholder group as discussed above, almost all respondents agreed or strongly agreed with the statement: the marine environment is of great importance to tourism in Gili Trawangan. Some respondents either did not give a response or were unsure of how to answer the question.

A local explained that people came to the island because of the marine environment, which was evident by the number of dive shops and snorkelling adventures on the island (Interview # 20, 2010). Tourists confirmed that the marine environment was important to their trip (Table 5.7). "Absolutely [the marine environment is of great importance], it's the main reason why I came here: I came here to dive!" (Interview # 48, 2010).

5.2.4.1 Summary

Overall, stakeholder responses demonstrate that there is a higher level of agreement that the marine environment is of great importance to tourism than to their stakeholder group. Although all respondents were able to

see the importance of the marine environment to tourism, not all were able to see how the marine environment therefore may have been necessary for their own livelihoods and businesses. This demonstrated that there was a common vision among stakeholders who linked the marine environment to tourism, but not a common vision of its importance to each stakeholder group. There seemed to be a lack of importance placed on the marine environment by some stakeholder groups, which could result in a lack of perceived urgency or need to protect the resource. This may ultimately result in difficulty collaborating with other stakeholders on sea turtle conservation and tourism.

5.2.5 Sea Turtles in Gili Trawangan

The study next focused on sea turtles and how stakeholders perceived sea turtles. Again, stakeholder perceptions were explored regarding both the importance of sea turtles to each stakeholder group, and then directly to tourism. Table 5.8 presents stakeholder perceptions on the importance of sea turtles to each stakeholder group.

Table 5. 8: The Importance of Sea Turtles to each Stakeholder Group in Gili Trawangan

Sea Turtles are of Great Importance to [each Stakeholder Group] in Gili Trawangan							
Stakeholder	**Frequency**						
	Strongly Disagree	**Disagree**	**Somewhat Agree**	**Agree**	**Strongly Agree**	**DK/NR**	**Total Responses per stakeholder group**
ENGO	0	0	0	1	1	0	2
Locals	0	0	1	3	5	4	13
Regulator	0	0	0	1	0	2	3
Tourists	0	0	3	7	0	0	10
Operator	1	5	2	1	5	4	18
Educator	1	0	0	0	0	1	2
Total	2	5	6	13	11	11	48

N = 48
DK/NR Did not know or No Response

There was a large difference in the perceived importance of sea turtles to each stakeholder group. Individuals from ENGOs, locals and some operators perceived sea turtles as very important while some operators and educators disagreed. This demonstrates that educators and some operators did not perceive sea turtles as directly important to their group; however, individuals from ENGOs, locals and certain operators viewed them as quite important. This is consistent with responses regarding the importance of the marine environment as previously discussed.

5.2.5.1 Sea Turtles Important

The majority of respondents (30 out of 48) perceived sea turtles as at least somewhat important to themselves. Further, many respondents (24 out of 48) either agreed or strongly agreed that sea turtles were of great importance to themselves. Dive shops and snorkelling adventure tours placed a higher level of importance on sea turtles than did accommodations or restaurants. As a business focused on SCUBA diving, "turtles are brilliant...They're very important. I mean it's the whole sales point of diving really" (Interview #9, 2010). Tourists

supported this statement, with all tourists stating that they at least somewhat agreed that turtles were of great importance to their trip.

Most locals (nine out of 13) said that sea turtles were of at least some importance to them (some locals did not give a response). They stated that sea turtles were important to them because they attracted tourists and made tourists happy (Interview # 20, 25, 28, 30,31,32,36, 2010), for medicinal purposes (Interview # 25, 2010), and because they themselves enjoyed sea turtles (Interview # 25, 30, 31, 32, 36, 2010).

5.2.5.2 Sea Turtles Unimportant

A few respondents (mainly operators) perceived sea turtles as having little importance. A fast boat operator explained that sea turtles were not of great importance to the business: "it's not only turtles that are attracting tourists. Sea turtles are just a piece of the attraction" (Interview # 13, 2010). Meanwhile a restaurant owner saw no value in sea turtles related to their business (Interview # 22, 2010). Operators with no direct link to sea turtles perceived them as having little importance to their operation. In addition to operators, an educator also explained that sea turtles were of little importance in the education system.

Tourists seemed to value sea turtles more than operators on the island which was interesting considering all types of operations in Gili Trawangan relied on tourists for business. This may have demonstrated a disconnect between certain stakeholders' ability to see the value of the marine environment (specifically in sea turtles) to their livelihoods by attracting tourists to the island.

5.2.5.3 Summary

All stakeholder responses were fairly consistent within their stakeholder group with the exception of the operators whose responses varied quite significantly. Some operators placed little or no importance on sea turtles, while others placed a high level of importance on them. This is likely due to the type of operation run by the operators as discussed previously. Restaurants, some accommodations, and fast boats placed little importance on sea turtles, while dive shops and tour operators placed a high level of importance on this resource. Tourists, regulators, ENGOs, locals, and some operators all placed a high level of importance on sea turtles to their livelihoods.

5.2.6 The Importance of Sea Turtles to Tourism in Gili Trawangan

Stakeholder perceptions regarding the importance of sea turtles to tourism were obtained and are presented in Table5.9.

Table 5. 9: The Importance of Sea Turtles to Tourism in Gili Trawangan

Sea Turtles in Gili Trawangan are of great importance to tourism in Gili Trawangan						
Stakeholder Group	**Frequency**					
	Strongly Disagree	**Disagree**	**Somewhat Agree**	**Agree**	**Strongly Agree**	**DK/NR**	**Total Responses**
Educator	0	0	0	0	**1**	**1**	2
Local	0	0	0	4	**5**	4	13
ENGO	0	0	0	**2**	0	0	2
Regulator	0	0	0	1	0	**2**	3
Operator	1	1	2	**6**	**6**	2	18
Total	1	1	2	13	12	9	38

N = 38

DK/NR Did not know or No Response

Overall stakeholders perceived sea turtles to be quite important to tourism. Responses suggest that overall, respondents mostly agreed with the statement. This means that stakeholders, on average, agreed that sea turtles were of great importance to tourism in Gili Trawangan.

5.2.6.1 Sea Turtles as Unimportant to Tourism

Very few respondents (an expatriate who owned an accommodation, and an expatriate who owned a restaurant) expressed that sea turtles were not very important to tourism on the island. The restaurant owner expressed that there was not really a link between sea turtles and tourism (Interview # 22, 2010). Of all the respondents, only expatriates who owned businesses not directly relying on sea turtles were unable to see the importance of sea turtles to the tourism industry.

5.2.6.2 Sea Turtles as Important to Tourism

For the majority of respondents, there was an obvious link between sea turtles and tourism. The educators, although unable to see the importance of sea turtles to their stakeholder group or their livelihood, recognized that sea turtles played a very important role in tourism on the island. One local specifically made the link between sea turtles and local livelihood on the island. "This is our livelihood on Gili T" (Interview # 33, 2010). Another local explained that sea turtles were "VERY important. I'm sure of that. Every tourist that comes here, they either want to see sharks, or turtles. And we also tell them "you dive in the Gilis, you must be very unlucky not seeing a turtle"" (Interview #36, 2010). Tourists identified sea turtles as important because they were a unique attraction for certain tourists, while operators utilised sea turtles as a marketable resource.

Sea turtles are not found all over the world. Tourists from areas that do not have them placed a high level of importance on seeing sea turtles on their trip. All tourists expressed that sea turtles were at least somewhat important to their trip. Responses ranged from very important, mainly from travellers visiting from far away who did not have an abundance of sea turtles (Europe and North America), to important, but not critical (tourists from Australia/Oceania). "Yeah I love the sea turtles! There's not much to do and that's kind of the main thing. When you go diving, you want to see sea turtles, and if they are not here I think a lot of people will go somewhere else"

(Interview# 45, 2010). Sea turtles were found to be important and unique to many travelers because they cannot see them in their home countries.

Respondents from nearby Australia were least excited about sea turtles, but still identified their importance to tourism in Gili Trawangan. "They're not that important for my trip here, I mean, they are beautiful, but like I see them a lot in Australia, so they aren't that unique to me. But they are really beautiful so I guess they still are pretty important" (Interview #51, 2010).

Sea turtle decorations, architecture, and poster board marketing were frequently used to attract tourists into certain businesses (Figure 5.2). One tourist described sea turtle architecture that she spotted on her arrival to the island. "Well in our hotel they have sea turtles in the floors for decoration. So you get the feeling that there must be a lot of sea turtles here because there are a lot of decorations of sea turtles" (Interview# 45, 2010).

Figure 5. 2: Examples of Sea Turtles Observed as Decoration, Architecture and Marketing in Gili Trawangan

Ashtrays were made to look like sea turtles, while fences and sidewalks were also designed like sea turtles (Figure 5.2). Many dive shops, stores and restaurants used sea turtles to market their products. Poster boards outside various operations visually highlighted sea turtles as an attraction and listed them as a prime attraction (listed them first) on tours. With the large presence of sea turtle decorations, and the island marketed as the "Sea Turtle Capital of the World", it was evident that sea turtles played a large role in tourism.

5.2.6.3 Summary

Although tourism was seen as very important to the future of the island and sea turtles were strongly linked to tourism, not all stakeholder groups placed an obviously high level of importance on sea turtles. There was a lack of perceived importance from certain stakeholders (normally those not directly dependent on sea turtles) to see the true potential importance of sea turtles to their own livelihood through tourism on Gili Trawangan. The responses may

suggest that if sea turtles were to disappear this could negatively impact tourism on the island. This in turn could have potentially serious consequences on all stakeholder groups.

5.2.7 Perceived Impact of the Possibility of the Disappearance of Sea Turtles in Gili Trawangan

In order to further explore sea turtles and their role on the island, respondents were questioned about the perceived impact if sea turtles were to disappear. This information aimed to further understand the level of importance of sea turtles on the island and stakeholder perceptions of fear if the population was to collapse. Although many respondents (e.g., ENGOs, dive shops, tour operators, and locals) felt that they would be very strongly impacted if sea turtles were to disappear, some stakeholders felt that the lack of sea turtles would not impact them or tourism significantly. An ENGO stated that without sea turtles, tourism would slow down because tourists would stop coming to the island and decide to go to Bali instead (Interview # 39, 2010). Stakeholder perceptions fell into four categories. The first category recognized sea turtles as just one part of the attractive marine environment in Gili Trawangan, while the second placed much more importance on the sea turtles saying that they were one of the main three marine attractions. Out of the three, sea turtles were the most dependable tourism interest and therefore very important. Disappointed tourists emerged as another category. Lastly, some stakeholders stated that the disappearance of sea turtles would have no impact. Each category is discussed in the following sections.

5.2.7.1 Little Impact: Just One of Many Attractions

A few respondents directly stated that if sea turtles were to disappear, there were still many other attractions for tourists, like colourful fish and coral (Interview # 2,3,7,9,25,36, 2010). A dive shop manager explained that "There's a lot of other stuff to look at" (Interview #7, 2010). As such, some respondents stated that if only sea turtles were to disappear, tourism likely would not be too affected; however, if other marine life was to disappear in addition to sea turtles, then tourism would decline (Interview # 2, 3, 5, 9, 13, 25, 26, 2010). A couple of regulators, dive shop managers, and locals specifically stated that sea turtles were simply one of many attractions.

5.2.7.2 Impact: the Loss of the Most Dependable of the Three Main Marine Attractions in Gili Trawangan

There were three main marine attractions for divers on the island: sharks, manta rays and sea turtles (Interview # 5, 6, 9, 36). Some respondents specifically said that sea turtles were a marine species in Gili Trawangan that could regularly be seen on dives (Interview #3, 5, 6, 8, 9, 11, 30, 35, 36, 2010). Being able to spot sea turtles so consistently is very unique in many locations around the world. A dive instructor who has spent years in Southeast Asia diving explained that "there are a lot [of sea turtles] here, and we're very lucky that (we can't guarantee it of course, but) we can say that there's a large chance that they'll see them. It's good as a seller's point, and for sure, every time you take a new diver and they see a turtle, I mean, they are so excited. You can go diving in other places, and you can go diving every day and see only like one turtle per week..." (Interview # 6, 2010). A dive shop owner explained that turtles were so important for dive shops on the island because they were a dependable and reliable attraction, so even though divers may not see other unique species like cuttlefish or sharks, they were very likely going to be satisfied by seeing sea turtles (Interview # 11, 2010).

Another expatriate dive instructor stated that "we tell them that you can see [sea turtles] on about every dive. I see them on about nine out of ten dives... sometimes just telling them [tourists] that they'll see turtles is enough to

get them to sign onto a fun dive. And for dive shops it'd be one less thing that we could tell people. Because turtles are one of the big things: turtles, sharks, rays. Those are the big things that people want to see" (Interview #5, 2010). Of the big three, only sea turtles were nearly a guarantee to be seen on all dives in Gili Trawangan. Without sea turtles, a unique experience would be diminished, and the near guarantee to see any of the big three would be gone.

As discussed, this category was most prevalent among stakeholders who had a direct connection to the marine environment: almost all (five out of six) dive shop respondents perceived the disappearance of sea turtles as a loss of a very dependable species. In addition, an ENGO, a regulator, and couple if locals also perceived sea turtles as one of the prime three attractions in Gili Trawangan.

5.2.7.3 Impact: Disappointed Tourists

The disappointment of tourists due to the disappearance of sea turtles was evident among stakeholder responses. A dive instructor said that without sea turtles, most divers would likely be a lot less enthusiastic and many would also likely not return for a second or third dive (Interview #6, 2010).

Nearly all tourists (eight out of ten) stated that they would be very disappointed if sea turtles were to disappear from the island. A couple of tourists stated that part of why they decided to visit Gili Trawangan was because they had heard that there was a lot of respect for the environment on the island, and that if a location that is known for an abundance of sea turtles no longer has sea turtles then it would be a huge disappointment (Interview #50, 51, 2010). "The disappearance of a species is never an attraction" (Interview # 51, 2010). Another tourist said that it would be a shame if sea turtles were to disappear because they were a main attraction for divers (Interview #48, 2010). Many people come to the island just to dive, so it would greatly impact this business.

5.2.7.4 No Impact

Some respondents perceived the disappearance of sea turtles from Gili Trawangan as having no impact. The respondents that expressed this belief included a regulator, a few small accommodation managers and owners, a restaurant owner, a restaurant manager, and an educator (Interview # 3, 15, 16, 17, 18, 21, 22, 41, 2010). This finding was quite consistent with the findings previously discussed in this study. Respondents who did not work directly with sea turtles for their livelihood did not place a much importance on their existence.

5.2.7.5 Summary

Stakeholders perceived the potential disappearance of sea turtles in Gili Trawangan in various ways. It was evident that most respondents from dive shops, tour operators and tourists perceived the disappearance of sea turtle as a large issue. However, many other stakeholder groups (mostly individuals from accommodations and restaurants within the operator stakeholder group) seemed to believe that there would be no impact. Local responses were quite evenly spread out among categories and likely depended on how linked they were to the marine environment for their work. These results are somewhat comparable to previous sections in the study.

The respondents who stated that there would be no impact if sea turtles were to disappear were mostly the respondents who placed the least importance on sea turtles to their livelihood. This is of interest as they did state previously that sea turtles were of high importance to tourism on the island. This suggests that perhaps some respondents overstated the importance of sea turtles in the previous sections. This question helped to gain more

understanding of the importance of sea turtles to each respondent by approaching the topic in a different, negative, and less direct manner.

5.2.8 Sea Turtle Conservation in Gili Trawangan

The section presents the importance and urgency of sea turtle conservation as perceived by stakeholder groups, and aims to explore whether or not there was a common vision among stakeholders. Specifically, this section examines whether or not there was a crisis perceived by stakeholders that required immediately improved conservation of sea turtles.

5.2.8.1 The Importance of Sea Turtle Conservation to each Stakeholder Group in Gili Trawangan

Stakeholders were asked about sea turtle conservation in Gili Trawangan. Interview responses are organized by stakeholder group for comparison, and a total of responses in the bottom row in Table 5.10.

Table 5. 10: The Importance of Sea Turtle Conservation to each Stakeholder Group in Gili Trawangan

Sea turtle conservation is of great importance to [each stakeholder group]						
Stakeholder group	**Frequency**					
	Strongly Disagree	**Disagree**	**Somewhat Agree**	**Agree**	**Strongly Agree**	**Dk/NR**	**Total responses per stakeholder group**
ENGO	0	0	0	0	**2**	0	2
Local	0	0	1	1	**7**	4	13
Tourist	0	0	1	3	**5**	1	10
Regulator	0	0	0	**2**	1	0	3
Educator	0	0	0	1	0	1	2
Operator	0	3	3	3	**5**	4	18
Total	0	3	5	10	**20**	10	48

N=48
DK/NR Do not know or no response

All stakeholder groups (except for operators) at least somewhat agreed with the statement that sea turtle conservation was of great importance to them. Overall, most stakeholders agreed that sea turtle conservation was important to their stakeholder group.

The majority (35 out of 48) of respondents at least somewhat agreed that conservation was of great importance to their stakeholder group. A lot of respondents (20 out of 48) strongly agreed with the statement. There were a few varying reasons as to why sea turtle conservation was perceived as important to each stakeholder group: to ensure future tourism arrivals continue to support the local livelihood, for business survival, for future medicinal use, and out of principle. Each theme is discussed in the following sections.

5.2.8.2 Future Tourism Arrivals to Support Local Livelihood

One theme that emerged from this section was the importance of conserving sea turtles in order to ensure that tourism as a local livelihood continues. ENGOs and locals placed the greatest importance on sea turtle conservation to their stakeholder group. An ENGO explained that sea turtles were a prime tourist attraction and that their ENGO recognized this, and therefore conservation was imperative on the island to continue to attract tourists (Interview # 35, 2010). Many locals explained that sea turtle conservation was important to them because they relied on sea turtles to attract tourists. The locals were employed by the tourism industry; therefore, sea turtle conservation was important to them (Interview # 26, 27, 28, 30, 31, 32).

5.2.8.3 For Business Survival

Business survival was a factor in the importance of sea turtle conservation. Operators had the widest range of responses and also placed the least value overall on the importance of sea turtle conservation to their operations. However, the majority of operators expressed that sea turtle conservation was of at least some importance to their business. The owner of a dive shop explained that sea turtle conservation was more important to their business than to tourism in general in Gili Trawangan because they relied on sea turtles for business sales. Sea turtle conservation "is more essential for our business [than specifically to tourism]. It's nice to see turtles. And for tourism in general, I think it's also important" but not essential (Interview # 11, 2010). Dive shops and tour operators specifically linked the importance of sea turtle conservation to their businesses as they relied on them as a business resource.

5.2.8.4 Out of Principle

Although not a common response, a few stakeholders stated that sea turtle conservation was important to them simply out of principle (Interview # 6, 16, 17, 20, 2010). A local explained that because such a small number of hatchlings survive, it is imperative that destinations with large populations of sea turtles aim to protect them and not exploit them (Interview # 20, 2010). An expatriate dive instructor explained that as sea turtles were threatened greatly already that it was critical that islands like Gili Trawangan contributed to their conservation rather than simply use them as a resource (Interview # 6, 2010). An owner of some accommodations on the island explained that Gili Trawangan was an ideal nesting and nursing ground for the endangered sea turtles, so it should be out of principle and responsibility that the area contributes to sea turtle conservation (Interview # 16, 2010). Most tourists stated that they considered sea turtle conservation important because they believed that conservation in general was always important (Interview #42, 47, 48, 49, 50, 51, 2010).

5.2.8.5 Future Medicinal Use

The use of sea turtles went beyond tourism for certain individuals. Therefore, the importance in conserving the species was not always linked to tourism. One local explained that some locals use sea turtle eggs to help treat stomach pains. Therefore, conserving sea turtles was important to ensure that locals can continue to use sea turtle eggs in the future for medicinal purposes (Interview #25, 2010).

5.2.8.6 Sea Turtle Conservation not Important for Certain Operators

Very few respondents (all were operators) did not consider sea turtle conservation important to their stakeholder group. A local fast boat operator, an expatriate restaurant owner, and a non-local Indonesian manager at a

large accommodation explained that sea turtle conservation was not important to their business. The manager at the accommodation stated that sea turtle conservation was not important to their business, but more so for tourism in general on the island (Interview# 14, 2010). These respondents did not rely directly on sea turtles for business and therefore did not consider that tourism largely depended on sea turtles.

5.2.8.7 Summary

Most respondents agreed that sea turtle conservation was of great importance to their stakeholder group. They were able to understand that sea turtles were linked to tourism on the island and that their livelihoods depended on tourism and ultimately what attracted tourists to the island. Operators were the only stakeholder group who placed less importance on sea turtle conservation to their businesses. In fact, a few (three) disagreed that sea turtle conservation was of great importance to their business. This shows that some operators did not understand that their businesses relied on the resources that attract tourists to the island.

5.2.9 The Importance of Sea Turtle Conservation to Tourism in Gili Trawangan

Stakeholder perceptions of the importance of sea turtle conservation to tourism were obtained to further determine if stakeholders shared a common vision or differing interests. Table 5.11 presents responses by stakeholder group and also presents the total responses in the bottom row.

Table 5. 11: The Importance of Sea Turtle Conservation to Tourism as Identified by each Stakeholder Group in Gili Trawangan

Sea Turtle Conservation is of Great Importance to Tourism in Gili Trawangan						
Stakeholder Group	Frequency					
	Strongly Disagree	**Disagree**	**Somewhat Agree**	**Agree**	**Strongly Agree**	**DK/NR**	**Total responses per stakeholder group**
Local	0	0	0	4	**8**	1	13
ENGO	0	0	0	**1**	**1**	0	2
Educator	0	0	0	**1**	**1**	0	2
Operator	0	1	2	**6**	**6**	3	18
Regulator	0	0	0	2	0	1	3
Total	0	1	2	14	**16**	5	38

N=38
DK/NR Don't know or no response

Stakeholders overall seemed to agree and strongly agree that sea turtle conservation is of great importance to tourism on the island. Those that agree and strongly agree made up the majority of responses (30 out of 38 responses). A few respondents gave no response (DK/NR). The vast majority of respondents at least somewhat agreed that sea turtle conservation was of great importance to tourism in Gili Trawangan. Locals placed the same level of importance on sea turtle conservation to themselves as they did to the importance of sea turtle conservation to tourism on the island. Although operators seemed to agree that sea turtle conservation was important to tourism, they still did not value it as important as other stakeholder groups did. Sea turtle conservation was considered important for various reasons which are explored in the following sections.

5.2.9.1 A Model for Everyone to Follow

An expatriate dive instructor and a regulator explained that sea turtle conservation was important to act as a model for tourists and for others to follow (Interview #1, 6, 2010). In addition, the dive instructor explained that tourists would not be pleased if sea turtle conservation was not implemented. This displeasure, would impact their length of stay on the island, as well as support (financial and practical), and their behaviour. "I do think that it's important for tourism because people are not going to stay here for as long if they see that it's crap. And if they think that we don't care about conservation then they may think well maybe "why should I care?" or, "why should I give my money to these people who don't actually care about the environment that they live in"" (Interview # 6 2010).

5.2.9.2 To Protect a Unique Tourist Attraction

A regulator who has lived on the island since it became inhabited explained that before tourists arrived, sea turtles were not recognized as a tourist attraction on the island. However, since tourists began arriving on the island, it became clear that sea turtles played a large role in tourism, and could provide a way in which locals could earn money (Interview #2, 2010). Therefore, conserving the sea turtles was recognized as important because using them as a tourist attraction was feasible, and imperative for local livelihoods.

A couple of European tourists explained that conservation was important to them because without unique species like the sea turtle, they would not have traveled the great distance to be in Gili Trawangan because it would not offer anything special and different (Interview # 44, 45, 2010). "If there's nothing here in the sea, and there's just resorts, I mean, you can do that anywhere. There's nothing special about it. It's a part of nature and you go on a holiday and you go on a long trip to see things that are still in nature which aren't in nature in our country, like sea turtles. Nature and wildlife is important for someone's vacation. That's when you realize that you are far away from home because we don't have that at home. We can go other places where we can get resort life" (Interview# 45, 2010).

It is this ability to connect sea turtles with a unique and interesting experience that draws tourists to the island that some operators were unable to see.

5.2.9.3 Conservation not Important

Only one respondent believed that sea turtle conservation was not of great importance to tourism in Gili Trawangan. The operator (an expatriate restaurant owner) who disagreed with the statement believed that sea turtles were not important to tourism. As a result, he expressed that sea turtle conservation also shared no link to tourism (Interview # 22, 2010).

5.2.9.4 Summary

Respondents overall placed more importance on sea turtle conservation to tourism than they did to each stakeholder group. This is consistent with previous findings in the study examining the importance of sea turtles and the marine environment. There were various reasons why stakeholders placed importance on sea turtle conservation: for continued tourist arrivals to support a future on the island, for business purposes, medicinal reasons, and to act as a model for others to follow. Sea turtle conservation was important to tourism to act as a model and also to protect the unique species that draws tourists from far away.

5.2.10 Urgency of Sea Turtle Conservation in Gili Trawangan

Urgency is important to understand for this study, because crisis is often a prime catalyst for partnership development. Therefore, if stakeholders all perceived sea turtle conservation as urgent, then this may be beneficial to the opportunity of stakeholder collaboration on the island. Interview respondents were asked if sea turtle conservation was urgent in Gili Trawangan.

Most of the respondents stated that sea turtle conservation was urgent. Many respondents did not know, or did not share their perspectives on this topic. Few respondents stated that sea turtle conservation was somewhat important, while even less said that sea turtle conservation was not urgent. The responses are discussed in the following sections.

5.2.10.1 Urgent: Proactive Instead of Reactive, to Help Deal with Tourism, Giving Back

Most of the respondents stated that sea turtle conservation was urgent because of three prime reasons: species protection should be proactive rather than reactive, a need to deal with the increase in tourism on the island, and the desire to give back to the island from which they have taken so much. Many of the tourists expressed that sea turtle conservation was urgent. They stated that it was urgent on the island as it was urgent everywhere, and therefore it was urgent in Gili Trawangan (Interview #42,43,47,48,49, 2010). "You shouldn't wait 'till it's urgent; it should always be an urgent issue. You shouldn't wait for these sorts of things to get out of control and then try to fix them, right? That's the whole point. You need to think ahead...." (Interview # 42, 2010).

All ENGOs, most operators (ten out of 18), and many of the locals (six out of 13) responded that sea turtle conservation was urgent, placing this response as the most frequent in each of those stakeholder groups. One operator explained that "it's probably more urgent at the moment with all the tourism on the island" (Interview#11,2010). Another operator said: "I think it's urgent anywhere, anywhere around the world where there are species that are endangered. And I think here... particularly on these islands where everyone has prospered so quickly, and so much, that they really have to be aware of putting stuff back to what they've taken out." (Interview#16, 2010).

5.2.10.2 Unsure: Not Knowledgeable Enough

The majority of regulators and educators stated that they were unsure, or did not share their perspective (Interview # 2, 3, 40, 41, 2010). Many tourists said that they were not knowledgeable enough about sea turtle conservation or the island to say yes or no. "My problem is that I'm not a biologist, so I don't have the background to really say yes or no, 'cause I don't have too much information on it" (Interview #46,2010). The finding that many (17 out of 48) respondents were unsure whether or not sea turtle conservation was urgent is an important finding. This may demonstrate a lack of knowledge regarding both the impact of tourism on sea turtles and sea turtle conservation in general.

5.2.10.3 Somewhat Urgent: Sea turtle Conservation Already Exists in Gili Trawangan

Those who stated that sea turtle conservation was somewhat urgent further explained their response. It was perceived as not urgent because there were some forms of conservation already in existence (Interview # 5, 6, 17, 32, 2010). It has "already been addressed. It's a work in progress" explains an expatriate owner of a small accommodation (Interview #17, 2010). Some respondents stated that although they believed that sea turtle conservation was only somewhat urgent on Gili Trawangan, they still believed that it was very important (Interview

#5, 6, 32, 2010). "I wouldn't say it's urgent. But I do think that it's an ongoing very important thing. So, I wouldn't call it completely urgent, but I would say that yes it is necessary to continue for sure" (Interview #6, 2010). This finding is important for the study, because although not all stakeholders considered conservation as urgent, those who identified it as somewhat urgent stated that it was still very important. Therefore, recognition by stakeholders that urgency should not be the main catalyst for conservation is beneficial for this study.

5.2.10.4 Not Urgent: Huge Population of Sea Turtles, it's Too Late, Conservation is Not Natural

There were three reasons that respondents explained why they perceived sea turtle conservation as not urgent: there was already a huge population of sea turtles surrounding the island (Interview # 7, 2010); it was simply too late for conservation (Interview # 21, 2010); and because conservation is not natural (Interview # 36, 2010). A dive shop manager stated that there was no need for conservation as there were already so many turtles in Gili Trawangan (Interview # 7, 2010). Conversely, a restaurant manager explained that it was simply too late for sea turtle conservation on the island (Interview #21, 2010). Lastly, a local explained that sea turtle conservation was not necessarily always natural, and that the environment should not be conserved or exploited (Interview # 36, 2010). Although a small number of respondents identified sea turtle conservation as not urgent, their responses were all very unique and important to consider for the study.

5.2.10.5 Summary

The pristine marine environment was considered by stakeholders as most important to tourism in Gili Trawangan as it is the largest attraction on the island. Respondents had various connections with the marine environment from depending on it for business to recognizing it as a source of their livelihood. It was considered quite important to each stakeholder group, but slightly less than to tourism directly.

Sea turtle conservation was recognized as important to tourism on the island to act as a model for the industry and tourists to follow and also to protect a unique and dependable resource. Sea turtle conservation was less important to each stakeholder group directly. Stakeholders identified that conservation was important to them to ensure future tourism arrivals, for business survival, for future medicinal use, and as a principle belief.

Sea turtles were considered important for tourism (although less so than the entire marine environment) largely due to their uniqueness to tourists who traveled great distances to Gili Trawangan. Lastly, sea turtles were considered least important to each stakeholder group overall. There was a large disparity in stakeholder perceptions regarding the importance of sea turtles to each stakeholder group. Many considered sea turtles as imperative to their business or livelihood while many did not consider sea turtles important at all. This section presents contrasting perceptions that are important to the study.

Overall, there did not seem to be a consensus on the degree of importance or urgency of sea turtle conservation. Stakeholders valued sea turtles as a business resource, a source for their livelihood, and some placed a value on sea turtle existence. The stakeholders seemed to lack a common vision and had many conflicting views regarding sea turtles and their role in tourism and conservation. Although sea turtle conservation was perceived as urgent to many of the respondents, there did not seem to be an overwhelming perception of a crisis in need of immediate attention. A crisis is often a strong catalyst to partnership development, and this factor does not seem to be

present in Gili Trawangan. That being said, some respondents expressed that a lack of urgency does not diminish the importance of conservation on the island.

5.2.11 Conclusion

The marine environment in Gili Trawangan is what is drawing tourists to this destination. Although not all stakeholders relied directly on the marine environment for their livelihood, they mostly relied on tourism which depended on the pristine environment. Respondents saw the least importance in sea turtles to their own stakeholder groups. Primarily operators and educators who did not directly depend on sea turtles for business or their livelihood placed the least importance on sea turtles. However, it was clear that the marine environment was a prime attraction and sea turtles were also a unique and dependable tourist attraction.

This section revealed that stakeholders perceived the marine environment as very important, and although considered less important, sea turtles were also considered important for various reasons including as a tourist attraction.

5.3 Section Three: Current Networks and Practices in Gili Trawnangan

This section explores networks, partnerships, practices, perceptions, and barriers to sea turtle conservation and tourism in Gili Trawangan. It identifies and discusses themes that emerged from stakeholder responses.

5.3.1 Past and Existing Networks on Gili Trawangan

As previously discussed (in chapter 2), past and existing networks play an important role in the development of successful collaborative work. In areas where stakeholders have worked together on previous projects, collaborative efforts may be natural to develop (Selin & Chavez, 1995). Non-professional networks such as social community relationships (example: church) are also beneficial for the development of partnerships (Selin & Chavez, 1995). In Gili Trawangan, there were existing organizations that involved multiple stakeholders. In addition, due to the small size of the island, the community was very close, and social relationships were evident. This section will detail past and existing partnerships and the leadership roles as identified through stakeholder interviews.

Stakeholders were asked to identify any partnerships that they were either a part of or knew existed on the island in the past or present. Due to the short history of the island, there were no past partnerships that were identified that did not exist at the time of the study. Therefore, partnerships identified in this section (Table 5.12) were all in existence on the island at the time of the study. The most frequently identified partnership is at the top of the table while the least frequently identified is at the bottom.

Table 5. 12: Frequency Tally of Existing Partnerships as Identified by Each Stakeholder Group in Gili Trawangan

Partnership Identified	Frequency					
	Government	Operators	Local	ENGO	Educator	Total Frequency
The Gili Ecotrust	3	12	5	2	1	**23**
Dive Shops	1	6	2	1	0	**10**
Local Regulators	3	2	2	1	0	**8**
Garuda & the Turtle Hatchery	0	1	0	2	1	**4**
"Everybody"	0	2	1	0	1	**4**
All Locals	0	1	2	1	0	**4**
Expatriate-owned businesses	1	0	1	1	0	**3**
Local Businesses and school	0	1	0	1	1	**3**
DK/NR	0	3	5	0	0	**8**
Total Respondents per Stakeholder Group	3	18	13	2	2	

N = 38
DK/NR Did not know or No Response

Tourists were not asked to respond to this question, as they were found to not have been on the island long enough to be able to respond appropriately. Some respondents (Interview # 12, 13, 19, 27, 28, 29, 32, 34, 2010) were unable to identify any partnerships on the island, most of whom were locals while the other few were Indonesian respondents from the operator stakeholder group. Respondents were able to identify more than one partnership, therefore in Table 5.12 there are more responses than there are respondents.

Partnerships were largely marine-based or professional partnerships. Locals were observed to be most often employed in maintaining accommodations or servicing restaurants. Few were involved directly with marine tours or dive shops. Dive shops required a certain level of education, and employees were largely expatriates. Tour operations, including snorkelling adventures, required language skills, and non-local Indonesians were often hired over true locals. As such, many locals may have been unable to identify existing partnerships on the island because they were segregated from directly working with the marine life, and were not involved in professional networks of this sort. The following section discusses partnerships or networks in existence at the time of the study (not necessarily linked to sea turtle conservation).

5.3.1.1 The Gili Ecotrust

The Gili Ecotrust was identified by the majority of the respondents. In addition, the Ecotrust was identified by the majority of each stakeholder group. Less than half of the interviewed locals identified the Ecotrust, while at least half of the respondents from every other stakeholder group identified it as a partnership. Once again, this may be due to the locals lack of involvement in employment directly related to the marine environment, and their lack of presence in professional networks in general.

The Ecotrust was created in 2002 by an expatriate dive instructor who had been living on Gili Trawangan for three years (Interview#11, 35, 2010). "We actually set up the Ecotrust in the beginning to stop the fishing practices and try and save the corals" (Interview # 11, 2010). Blast fishing around the island was quickly destroying the coral. The original Ecotrust members consisted of the six dive shops that were on the island at the time, and they cooperatively agreed to collect a reef tax from their divers. There is an individual who is responsible for managing the Ecotrusts finances (Interview # 11, 35, 2010). Money collected from the tax was then given to pay the local fishermen not to fish (Interview # 11, 2010). "The original Gili Ecotrust was the dive shops. There were six dive shops – mainly to stop destructive fishing, which we did, by collecting reef tax from our divers" (Interview #11, 2010).

In 2008 the Gili Ecotrust expanded activities to include more land based environmental projects and therefore more stakeholders, specifically, regulators, and more operators. In addition to dive shops, accommodations were invited to join. Ecotrust members were asked to collect a 50 thousand IDR (approximately 5.50 USD) "Ecotax" from tourists that would go to the Ecotrust's projects, and also to attend monthly meetings and events. During the research trip, accommodations were just starting to collect the "Ecotax" from tourists. Some accommodations had yet to begin the actual collection. Accommodations, in return for collecting the "Ecotax", were able to market themselves as members of the local ENGO. This process was still developing on the island and as a result it was evident during the study that many accommodations advertised their membership with the Ecotrust but were not collecting the tax from their guests or attending the meetings.

Satgas is a group of locals who are linked to the Ecotrust. Satgas was created by the locals of Gili Trawangan, and is a group of six locals who act as marine enforcement officers due to the isolated nature of the island (physically and from the Indonesian government/enforcement) (Interview# 2, 35, 2010). Since the Ecotrust expanded, Satgas worked alongside the Ecotrust and received their salary from the Ecotrust funds that were collected from tourists. The main role of Satgas was to help protect the marine environment. They primarily dealt with individuals who acted illegally in this respect (e.g., blast fishing and inappropriate behaviour relating to specific marine species) (Interview # 2, 26, 35, 2010).

The environmental coordinator for the Ecotrust at the time of the study was an expatriate who had lived on the island for seven years and was originally a dive instructor on the island. The environmental coordinator requested the position, and it was approved by other stakeholders and the founder of the organization (Interview # 11, 35, 2010).

The Ecotrust is a fairly longstanding network in Gili Trawangan which includes ENGOs, operators, regulators and some locals. The network strives to encourage the participation of various stakeholder groups and discussions regarding opinions, values and interests mainly focused on environmental protection on the island. The Ecotrust is composed largely of dive shops who perceived sea turtles as quite important to their livelihoods as explored earlier in the study. This type of existing multi-stakeholder partnership with an established leader and common values is beneficial for this study. There may be a possibility to expand this partnership to incorporate the promotion of conservation through sea turtle tourism into their current topics of interest. The benefits of expanding an existing local network to include sea turtle conservation would limit potential bureaucratic issues that could be exacerbated by developing an entirely new network focused only on sea turtle conservation.

5.3.1.2 Dive Shops on Gili Trawangan

The dive shops were identified as an existing network on the island by nearly all stakeholder groups (not the educators) and by some respondents (Interview #2, 5-9, 11, 20, 35, 37, 2010). "We work with all the other dive shops on the island, we have sort of a dive organization and we have a price agreement and agreements on what we can and cannot do, and we've all signed that to say we've adhered to it. So dive shops all get along because of the price agreement, no price competition" (Interview #5, 2010). There was no leader identified in this network, all dive shops worked together on the same level.

The dive shop network could also serve as a potential base to expand the partnership to promote conservation through sea turtle tourism. Respondents from dive shops perceived sea turtles as particularly important to their livelihood and therefore sea turtle conservation was of high interest to this group. However, as Selin and Chavez (1995) found, leadership is an important aspect in partnership development. Therefore the lack of leadership in this network may not be conducive to expanding the partnership beyond its current capacity. In addition, multi-stakeholder collaboration is important in this study, and this network was limited in terms of including other stakeholder groups.

5.3.1.3 Local Regulators

Local regulators were identified by some respondents as a local network (Interview #1,2,3,16,20,21,31,35 ,2010). The local regulators identified consisted of: the head of the three Gili Islands, the head of Gili Trawangan, and the seven local "RT's" (Interview# 1,3,16,20,31,35, 2010). The Head of the three Gili Islands is the Head of all the local regulators (Interview #3, 2010).

Gili Trawangan was divided into seven geographical zones. There was a local person as the head of each zone, to total seven representatives which were referred to as "RTs". The "RTs" were elected by the individuals living within each zone, from those who volunteered and were eligible for the position. Essentially, an "RT" was a local individual who represented the people from within their zone. They acted as the coordinator between the Head of the Village and the people from their zone. As such, it was a requirement that the "RT" had to have lived on the island for many years, and be very familiar with those in the zone that they represented.

"RTs" were not considered regulators on the island, but were considered to be part of the network with regulators. The two other Gili Islands (Meno and Air) also had a head of the island and local "RTs".

The local regulators were a professional network of elected officials and therefore were respected individuals in the community. This information demonstrated that in this network there was a leader: the Head of the three Gili Islands. However, the network was limited in terms of including various stakeholder groups. Some locals were involved (the "RTs") but this was very limited. Based on stakeholder perceptions examined in the previous section, regulators did not place as much importance on sea turtles as certain operators or locals. As such, it may not be in the interest of this existing network to encompass sea turtle conservation as an important area.

5.3.1.4 Donations and the Turtle Hatchery

The existing turtle hatchery (Figure 5.3) was built in 2009 by a donation from a large company. The relationship between company and the turtle hatchery was identified as a partnership by the operator, ENGO and the educator stakeholder groups (Interview #17, 35, 39, 40, 2010). A company "has just done a huge, huge sponsorship

deal. And they just injected X amount of rupiah to support their initiatives" (Interview # 17, 2010). An educator explained that the hatchery obtains funding from this company who also helped construct the hatchery building (Interview # 40, 2010). An ENGO in Gili Trawangan was unsure of the partnership between the company and the current turtle hatchery on the island and speculated that there was some ongoing funding being obtained from the company (Interview #35, 2010). However, a regulator and an ENGO explained that the company simply helped build the building and their sponsorship ended there (Interview # 1, 39, 2010).

Figure 5. 3: The Current Turtle Hatchery on Gili Trawangan that was Sponsored by a Company

The existence of this partnership was widely debated and served more as a catalyst of stakeholder conflict than a source of positive change. Although this partnership was identified by a few respondents as an existing partnership, its existence was a single event and this partnership, although identified, was not in fact a partnership on the island.

5.3.1.5 Other Networks

All other networks identified by stakeholders included: everybody on the island; all locals; expatriate owned businesses; local businesses and the school. It is such a small island that some respondents simply felt that the island was its own network and everyone on the island acted in partnership with each other (Interview#18, 23, 33, 40 ,2010). On the same note, a few respondents expressed that locals were very supportive of each other and often worked together and had good relationships (Interview# 24, 25, 31, 35, 2010). There were smaller partnerships on the island that continued to develop. An educator stated that local businesses often helped the school: "local businesses help the school get resources – like for example every Friday we clean the school up, so we need rubbish bins and things like this. Local businesses help us set this up" (Interview #41, 2010).

The island of Gili Trawangan is so small that the community itself serves as a form of multi-stakeholder collaboration. It was evident that the local community was very friendly and supportive of one another. As Selin and Chavez (1995) identified, small communities can be a strong base for the development of stakeholder collaboration.

5.3.1.6 Summary

The Ecotrust was identified by the most respondents as a network on Gili Trawangan. It had a leader and also included multiple stakeholder groups on the island. In addition, the stakeholder groups involved in the Ecotrust

(operators, specifically dive shop operations, and ENGOs) mostly perceived sea turtles as very important to their livelihood and tourism on the island. The characteristics that formed this network may serve as an important opportunity in the development of a multi-stakeholder collaboration to promote conservation. In addition to the Ecotrust, the small size of the community is conducive to partnership development for the promotion of conservation.

5.3.2 Current Practices Regarding Sea Turtle Conservation and Tourism in Gili Trawangan

This section explores current conservation practices in Gili Trawangan. Stakeholders were asked to identify attempts at sea turtle conservation on the island, and then asked if they believed that sea turtles were being conserved on the island. There were two identified conservation attempts. Responses are summarized in Table 5.13.

Table 5. 13: Identified Current Attempts at Sea Turtle Conservation Practices on Gili Trawangan as Identified by Stakeholders

Respondents	Current Attempt at Sea turtle conservation in Gili Trawangan
1,3,5,6,7,8,11-18,20-26,27-37,39,40,42-49	Turtle Hatchery
2,22,26	Ecotrust: Paying fishermen not to blast fish
9,19,41,50,51	DK/NR

N=48
DK/NR Did not know or No Response

Nearly all respondents (42 out of 48) identified the turtle hatchery as a current attempt at sea turtle conservation, although not all stated that it was in fact contributing to conservation. The turtle hatchery was based on a technique called "headstarting". Turtles were given a head start in life, as they were raised in tanks (Figure 5.4) for approximately one year to help develop their strength and size before being released into the ocean (Interview #39, 2010). The only other named project was the Ecotrust's program that paid fishermen not to blast fish as this causes turtles to die as by-kill. This conservation attempt was identified by a few respondents.

Figure 5. 4 The Headstarting Tanks at the Sea Turtle Hatchery on Gili Trawangan

Respondents were asked about their perception of the conservation practice(s) that they identified above. Specifically, they were asked if they believed that the identified practice was contributing to sea turtle conservation or

protection. The turtle hatchery was the most widely identified, and is the first practice explored in the following section.

5.3.2.1 Current Sea Turtle Conservation Practice on Gili Trawangan: the Turtle Hatchery

Table 5.14 presents perceptions of the turtle hatchery by stakeholders who identified the hatchery as a conservation attempt on the island. The total number of respondents for this table is 42 because 42 out of 48 respondents identified the hatchery.

Table 5. 14: Respondent Perceptions (who Identified the Hatchery as a Conservation Attempt) Toward the Turtle Hatchery on Gili Trawangan

Is the Sea Turtle Hatchery Contributing to Sea Turtle Conservation/Protection?	
Response	**Respondent**
Somewhat, but needs improvements	1,5,7,13,16,23,24,30,33,34,35,39,40,48,49
Yes	3,6,12,15,18,22,25,26, 27,28, 29,31,32
No	8,11,14,17,20,36,37
Unsure	42,43,44,45,46,47

n=42

Most respondents stated that the current turtle hatchery was contributing somewhat to sea turtle conservation, although it was in need of improvement. Many respondents (13 out of 42) said that it was definitely conserving sea turtles, but some respondents (seven out of 42) stated that they did not believe that the sea turtle hatchery was contributing to protecting sea turtles. An additional few respondents were not convinced either way and therefore were unsure whether the hatchery was benefitting the sea turtles. There was not a consensus regarding the hatchery and its contribution to conservation.

Table 5.15 divides respondent perceptions into stakeholder groups to identify any patterns within and among stakeholder responses.

Table 5. 15: Respondent Perceptions (who Identified the Turtle Hatchery as a Conservation Attempt) Toward the Turtle Hatchery on Gili Trawangan by Stakeholder Group

Is the Sea Turtle Hatchery contributing to sea turtle conservation/protection?	Frequency						
	Regulator	**Operator**	**Local**	**ENGO**	**Educator**	**Tourist**	**Total**
Somewhat, but needs improvements	1	**6**	3	**2**	**1**	2	15
Yes	1	5	**7**	0	0	0	13
No	0	4	3	0	0	0	7
Unsure	0	1	0	0	0	**6**	7
Total respondents per stakeholder group	2	16	13	2	1	8	42

n=42

Table 5.15 demonstrates that the perceptions toward the turtle hatchery project varied according to stakeholder group. A learned potential difficulty with this response was that the current turtle hatchery was developed and maintained by the head of the island. The head of the island tended to ground many important political decisions on relationships with community members. As such, many locals may not have felt comfortable expressing negative opinions of the sea turtle hatchery, as they may have feared that their comments could eventually jeopardise their relationship with a local power authority (Interview # 20, 2010).

5.3.2.1a Hatchery is Contributing to Sea Turtle Conservation

Most of the respondents who stated that the turtle hatchery was contributing to sea turtle conservation were locals (Interview # 25, 26, 27, 28, 29, 31, 32, 2010). They believed that the hatchery was a good solution to protecting sea turtle populations. One operator explained that the hatchery was great. He stated that the island was a "good place to quietly develop turtle populations. Tourists don't poke and pick up the sea turtles down at the sanctuary" (Interview #22, 2010). A local explained that the head of the village was conserving the sea turtles by protecting hatchlings until they were ready for life in the ocean (Interview # 32, 2010). Another local explained that the hatchery was good because turtles faced many predators at the beginning of their life, and the hatchery acted as protection until they were large enough to defend themselves in the open ocean (Interview # 26, 2010).

5.3.2.1b Hatchery is Somewhat Contributing to Sea Turtle Conservation

Most individuals that identified the hatchery as a conservation attempt stated that it was likely contributing somewhat to sea turtle conservation. Most operators and the ENGOs saw some potential in the project but perceived that it could be improved to ensure that conservation was the outcome. One ENGO recognized some potential in the project, but disagreed with how it was managed and stated that changes needed to take place in order for it to actually contribute to conservation (Interview # 35, 2010). For example, there was a fenced-in location where eggs were supposed to be re-buried upon finding a nest on the beach (Figure 5.5). This was to allow hatchlings to emerge safely and be retained within the fenced area until they could be safely released in to the sea (or in this case, put into headstarting tanks). The ENGO stated that "the eggs place is fake as no eggs are there. They buy the turtle eggs in the market or from people" (Interview # 35, 2010). In this sense, the ENGO explained that sea turtle conservation was not being attained, as this type of practice (selling eggs that are found) encouraged people to hunt for sea turtle nests, and collect the eggs in exchange for money.

An expatriate accommodation owner explained that the hatchery was a good idea, but that the turtles were susceptible to many diseases if the tanks were not managed perfectly. Therefore, their suspicion was that the turtles may not be benefitting from the tanks as much as the managers of the project may have thought, although the potential to be beneficial was evident (Interview #16, 2010). The locals, tourists and the educator who stated that the hatchery was somewhat contributing to sea turtle conservation simply stated that they believed that the hatchery could be improved from its current state to ensure a positive contribution to conservation (Interview #30, 33, 34, 40, 48, 49 2010).

Figure 5. 5: Fenced in Area of the Turtle Hatchery where Eggs Should be Buried and Hatchlings Could Safely Emerge

5.3.2.1c Unsure if the Hatchery is Contributing to Sea Turtle Conservation

Most tourists who identified the hatchery as a conservation attempt expressed that they were unsure if the hatchery was contributing to sea turtle conservation. "I don't know anything about what they're really doing. I talked to one local guy and he was explaining to me that [the sea turtles] were getting tunas every day and they feed them that and they release [the sea turtles] before they are one year old. And they have larger turtles in another area and they collect the eggs and let them hatch. But I don't know if that is actually a good thing. I'm not really convinced. I'm not really sure if I should be really positive about that kind of project" (Interview#46, 2010). Another tourist said that they had been to the turtle hatchery but were "not sure if it's conservation, or tourism, because people were touching them" (Interview#47, 2010). The hatchery project was leaving tourists unsure of its conservation benefits.

5.3.2.1d Hatchery not Contributing to Sea Turtle Conservation

The negative feelings toward the hatchery came from some operators and a few locals. Some felt that the project was focused more on attracting tourism than on protecting turtle populations (Interview # 8, 14, 17, 20, 36, 37, 2010). A dive instructor expressed his dissatisfaction with the project "to my opinion it should be more natural, like Komodos, so I think this is more for tourism here in my opinion" (Interview # 8, 2010). An individual from an ENGO explained that tourists often play with the turtles: "the tourists are often touching the turtles, carrying the turtles off, and giving the turtle heart attack, or drowning turtles" (Interview #35, 2010). One local explained that she believed that headstarting confused the turtles' natural instincts and life cycle and that the hatchery's main goal was to obtain money rather than turtle protection (Interview # 20, 2010). This respondent further explained that on one of her recent visits to the hatchery, there was a turtle that was too large to be in the tank and was biting and injuring other hatchlings. The respondent asked the managers why it had not yet been released, as it was clearly strong enough. The hatchery stated that they would only release the turtle if someone was willing to pay 200 thousand IDR to release it (Interview # 20, 2010). As such, this may suggest that money may have been being placed above sea turtle health and protection.

5.3.2.1e Summary

There were many conflicting perceptions and understandings expressed regarding the hatchery. There was no real consensus among stakeholders regarding the hatchery although it seems as though most respondents believed that it had the potential to contribute to conservation even if it was not at the time of the study.

5.3.2.2 Current Sea Turtle Conservation Practice on Gili Trawangan: the Ecotrust Paying Fishermen not to Fish

Of the respondents who identified the Ecotrust's sea turtle conservation attempts, all stated that they believed this attempt was in fact positively contributing to conservation. A local regulator explained that a long time ago blast fishing was very common and destructive to the turtles and the coral around the island. He further explained that since the blasting stopped, as advised by the Ecotrust, the turtles and the coral were much safer (Interview # 2, 2010).

5.2.3.3 Summary

The turtle hatchery was most frequently identified as an attempt at sea turtle conservation on Gili Trawangan. Most stakeholders considered there to be potential and room for improvement in the project to ensure that it contributed positively to sea turtle conservation. The Ecotrust's program of paying fishermen was least recognized as an attempt at conservation, although it was seen to be contributing positively to conservation by all respondents who identified it. At the time of this study not all attempts at sea turtle conservation were seen, by stakeholders to be contributing well to conservation. Therefore these attempts were important to identify for potential future improvement through collaboration.

5.3.3 Current Barriers to Sea Turtle Conservation on Gili Trawangan

This section explores barriers to sea turtle conservation. Respondents were asked to identify any existing barriers to sea turtle conservation on the island, and to explain why sea turtle conservation may not be as good as it could be on the island. Many barriers were identified, and responses were categorized and are presented below:

- Lack of Education
- Lack of Resources
- Lack of Communication
- Corruption
- Business Mentality
- Lack of Time
- Lack of Transparency
- Stakeholder Conflict
- Custom/Tradition
- Lack of Urgency
- Development
- Fast Turnover of People on the Island
- Lack of Responsibility
- Effort

5.3.3.1 Education

Education was the most frequently identified barrier to sea turtle conservation. It was identified as a barrier by various stakeholder groups: locals, operators, and tourists. An accommodation owner who attempted to open her own turtle tanks, but had to close them down because most turtles died, explained that "there isn't anyone who really

knows what they are doing [regarding sea turtle conservation]. It's not just something that you can set up alone kind of thing... a lack of education in general. Also I think of the locals, we're trying to educate them, and they're educating us as to what they need, what they have to do, what is cultural, and what is something that couldn't change. That's a very, very long process." (Interview # 16, 2010).

A couple of respondents specifically identified the education of tourists as the barrier (Interview# 9, 17, 2010), and a few identified education of locals as a barrier (Interview#5, 11, 15, 17, 36, 2010). A small accommodation owner explained that "a problem here is that tourists don't know that they shouldn't touch the sea turtles when they go out to see them. I mean, I have guests who come here and say "oh I just swam with the turtles and I rode on their back" that's just horrendous, and I mean it's just education..." (Interview # 17, 2010). Meanwhile a local resident explained that locals need more education and knowledge because "they think that they're helping, but they're really making it worse" (Interview #36, 2010).

Responses indicated that general education on the island regarding sea turtle conservation was lacking. A need for education to target specific groups including operators, locals and tourists to ensure that behaviours and practices on the island were not detrimental to sea turtle populations was seen.

5.3.3.2 Resources

The next most frequently identified barrier to current conservation practices was resources; specifically a lack of money. This barrier was mentioned by multiple individuals within various stakeholder groups: regulators, operators, locals, and tourists (Interview # 3, 6, 11, 17, 23, 27, 34, 47, 48, 49, 50, 51, 2010). An operator on the island said that "it's not for the lack of wanting to do the right thing. It's just that everybody is crying out "poor." Ah, we need finance to do it, we need this, we need support, we need sponsorship... that's the barrier" (Interview# 17, 2010). A regulator put it quite simply as "they [the current turtle hatchery] need more money" (Interview #3, 2010). Due to a lack of resources, respondents felt that even if education was not an issue and the hatchery was managed perfectly, that available resources (specifically a lack of money) would constrain practices on the island. Interestingly, neither ENGO identified resources as a barrier. As such, perhaps stakeholders not directly involved with sea turtle conservation on the island believed that money was a barrier, whereas, in reality, those involved with conservation (ENGOs) recognized that other factors, like stakeholder conflict and corruption (discussed below), played a much larger role in sea turtle conservation on the island.

5.3.3.3 Communication

Communication was identified by many respondents as a possible barrier. Most of the respondents who identified communication as a barrier were tourists (six out of 10). A few tourists stated that communication was a barrier because the hatchery project was not effectively relaying the purpose of their project to tourists. They felt this was likely as a result of poor language skills (Interview # 44, 45, 48, 2010). Therefore, tourists were confused about the project and did not support it because they did not understand it. A regulator explained that it was difficult for the hatchery to create proper signs in English for tourists at the hatchery (Interview # 1, 2010). Communication was stated as a barrier by individuals from the regulator, operator, local, and tourist stakeholder groups. This barrier is very important, because tourists were the main source of financial support for the project; however, they were not supporting it because of a lack of communication.

5.3.3.4 Corruption

Individuals from the local, operator, ENGO and tourist stakeholder groups identified corruption as a barrier to sea turtle conservation. As previously stated, the head of the village was also the owner and original founder of the turtle hatchery. An operator explained that "everyone on the island has their own relationship with the head [of the island]" (Interview #22, 2010). Many individuals on the island would never criticize the turtle hatchery and risk their good relationship with the head of the island, as they had too much invested in the island to risk any loss (Interview# 20, 2010). Therefore, corruption may have prohibited stakeholders from expressing any negative feelings about the hatchery and from proposing improvements which may have been, or which may be beneficial in the future.

5.3.3.5 Business Mentality

Business mentality was identified by some (seven of 48) respondents. Tourism (as a business) was seen as a barrier to sea turtle conservation: "it's difficult to meet tourism and conservation" stated a regulator (Interview #1, 2010). A couple of locals explained that people on the island are more interested in the business aspect of sea turtles than conservation. Some would rather attract more tourists in the present rather than conserve for continued use into the future (Interview# 27, 28, 2010). A local respondent explained that much of the activity on the island was about business and that "it should not be about money, but about doing things well" (Interview#27, 2010).

5.3.3.6 Time

Some respondents (seven of 48) identified time as a barrier (Interview # 14, 22, 23, 27, 29, 31, 47, 2010). A few were operators (from a large accommodation, a restaurant, and a tour operation), a few others were locals, and one was a tourist. These respondents stated that their busy schedules posed a barrier to sea turtle conservation, as meetings and appropriate action likely required their time in order to be successful.

5.3.3.7 Transparency

Project transparency was identified by operators and tourists as a barrier to sea turtle conservation. Most respondents were tourists (four of the six), and a couple were operators. Tourists were not being supplied with enough information on the hatchery to understand its conservation benefits (Interview # 44, 45, 2010). They also stated that the lack of project transparency caused them to not financially support the hatchery (Interview # 48, 2010). Operators explained that they were unaware of how the hatchery was managed (specifically with regard to donations) and as a result they were not interested in getting involved either practically or financially (Interview #11, 21, 2010). The lack of transparency of the turtle hatchery on the island was contributing to a lack of resources which was one of the most frequently identified barriers.

5.3.3.8 Stakeholder Conflict

Poor relationships between various stakeholders created a form of conflict that was identified by some respondents. The ENGOS often had disputes and did not have a strong relationship. As a result, sea turtle conservation was not as good as it could have been (Interview # 11, 39, 2010). The Ecotrust often identified problems with the turtle project, but did not provide the workers with a solution. As such, their relationship was not friendly (Interview # 39, 2010). Other stakeholder conflicts on the island included relationships between locals and tourists, and relationships between locals and expatriates on the island (Interview # 13, 34, 2010). A local operator

explained that tourists often did not respect the local lifestyle (Interview # 13, 2010). One local stated that tourists just did not care about local practices especially regarding sea turtle conservation (Interview # 34, 2010). The same local explained that the relationship between locals and expatriates was not very strong because locals did not fully trust the expatriates (Interview # 35, 2010).

Any conflicts between stakeholder groups that existed will likely be a factor in the development and examination of an opportunity for collaboration. The relationship between the head of the ENGOS was very important to note, because as previously discussed, the Ecotrust seemed to have a very strong multi stakeholder partnership that existed on the island and could be beneficial in this study. But, if the ENGOS are in conflict, this may pose a barrier to this partnership development. In addition, the social history of the island has resulted in a lack of trust between expatriates and locals. This is seen to be an important barrier in this study.

5.3.3.9 Custom and Tradition

Custom and tradition were identified as a barrier by some respondents. An individual from an ENGO explained that the Indonesian culture (including education) is focused on the present. This individual stated that locals of Gili Trawangan "don't really think further than tomorrow, sometimes further than the next minute" (Interview #35, 2010). A local explained that "the Indonesian way is just to earn money for now" because they cannot be concerned about the future as they need to worry about how they will live today (Interview # 30, 2010). This is an important barrier to the concept of sustainability at large. Sustainability is a concept that recognizes the needs of future generations. If the local customs of the community are unable to understand this general concept, then conservation on the island may be difficult to promote.

5.3.3.10 Urgency

Urgency was identified by some respondents as a barrier to sea turtle conservation. A dive shop explained that on the island there was "a general lack of sense of urgency, because even though [sea turtles are] globally endangered...there is such a large population in Gili T. People tend to be reactive, not proactive" (Interview #6, 2010). Another dive shop on the island plainly did not see the point in conserving sea turtle populations on the island even though they knew that they are globally endangered species. "Is there a need for it [sea turtle conservation] here? Because there are already so many damn turtles. I mean, I don't even know if there is a need for it, if they need conservation" (Interview# 7, 2010). A tourist explained that sea turtle conservation was likely not as urgent as other needs on the island. As such there was likely a decreased sense of urgency in their protection. "The people who live here, they think first of all about the first need: how do I/ how can I get food to be able to feed my family. They don't think about the environment and stuff" (Interview# 46, 2010).

The large population of sea turtles surrounding the island may be interfering with the urgency of conserving this species.

5.3.3.11 Development

Development in general on the island was identified as a barrier by a few respondents. "All the development on the beaches... where the turtles used to nest, they don't nest there anymore 'causeit's all been built up" (Interview #5, 2010). Hotels and bars were built on the beach and space for sea turtles to nest had diminished. "The real danger

is that there's no places for them to go give birth...There's no places anymore" (Interview #8, 2010). A local regulator explained that the turtle hatchery just needed more space, and the lack of space was a barrier to the project (Interview #3, 2010). Development seemed linked back to the barrier of corruption. Beachside development was illegal in Gili Trawangan (Interview # 35, 2010); however, based on relationships and bribes, beachside development was extremely prevalent (Interview # 11, 20, 30, 35, 36, 2010). Beachside development was encroaching on all suitable nesting beaches. Interestingly, the local regulators were pointed out to be accepting bribes for beachside development, while one of the few regulators was also the owner of the turtle hatchery. As such, allowing beachside development was in fact detrimental to the species that the regulator was trying to conserve. This barrier may also be linked to education. Because sea turtle nesting habits could be misunderstood on the island, destructive beachside development may have been allowed to occur.

5.3.3.12 Fast turnover of People

A fast turnover of people on the island was seen as a barrier by a few respondents. A fast turnover of Indonesian workers was identified by an operator as a barrier to sea turtle conservation. They explained the difficulty in trying to educate Indonesian workers on the island regarding sea turtle protection. "The rotation of local [workers], I mean, they're always coming and going from Lombok, so it's going to be non-stop. You tell someone, and then the next day he's not working anymore and it's someone else... " (Interview# 5, 2010). A local explained that the fast rotation of expatriates on the island may result in them not caring for the island as much as locals, and as a result sea turtle conservation may suffer (Interview # 30, 2010). In addition, a local explained that because tourists were only on the island for a short period of time that they may not place as much value on sea turtles as locals (Interview #30, 2010). The fast turnover of tourists, expatriates and non-local workers on the island may decrease the intrinsic value of the island in general, and sea turtles specifically. Therefore, the actions and behaviours of these groups may negatively impact sea turtle conservation, because of their lack of a true connection with the island.

5.3.3.13 Lack of Responsibility

A lack of a sense of responsibility and effort by individuals was identified by a local operator who explained that it was easy to not take responsibility for sea turtle protection by placing the responsibility solely onto the turtle hatchery: "that's your problem, that's your business" (Interview #24, 2010). An operator explained that a barrier to sea turtle conservation on the island was a general lack of people wanting to invest any effort in the project (Interview #9, 2010). Sea turtles are a public resource, and therefore it is simple to shift blame to avoid any responsibility or effort. This is an important barrier when examining the protection of any public resource.

5.3.3.14 Summary

Many barriers to sea turtle conservation were identified by respondents. Most barriers identified in this section were interrelated. For example, a lack of communication and transparency in the hatchery project may have resulted in a lack of resources, although each was independently identified as a barrier. Therefore, for consideration in this study it was important to identify all barriers according to all stakeholder groups, and also to analyze their interdependencies. Education, stakeholder conflict and transparency seemed to be the largest barriers, as they could be the source of the many other barriers identified in this section.

5.3.4 Conclusion

This section identified various networks that exist in Gili Trawangan. The Ecotrust was the most inclusive and established network on the island, with a widely recognized leader. In addition, the interest of the Ecotrust was largely in marine protection. This network is important because it may serve as a basis for developing a collaboration that is inclusive of more stakeholder groups on the island to help promote conservation through sea turtle tourism.

This section also explored current attempts and perceptions of sea turtle conservation on Gili Trawangan. It revealed that the hatchery on the island was widely recognized as an attempt at sea turtle conservation. Although the hatchery was not completely accepted by all stakeholders, most respondents saw potential in the hatchery project. Education, stakeholder conflict, and transparency were identified as important barriers to sea turtle conservation on the island, although many others were also identified.

5.4 Section Four: Management Strategies (Future)

The focus of this section is on management strategies related to sea turtle conservation and tourism. Specifically, this section explores: potential problems with stakeholder collaboration, how to overcome barriers to sea turtle conservation, future potential networks, leadership, and the financing of sea turtle conservation.

5.4.1 Potential Problems with Stakeholder Collaboration for Sea Turtle Conservation in Gili Trawangan

Stakeholders were asked if they could identify any potential problems with stakeholder collaboration. The results are presented in table 5.16.

Table 5. 16: Potential Problems (as Identified by all Stakeholder Groups) with Stakeholder Collaboration to Promote Conservation through Sea Turtle Tourism in Gili Trawangan

Potential Problem	Respondents who Identified the Problem
DK/NR	12,15,18,19,25,26,29,31,32,40,41,49
Stakeholder Conflict	1,9, 11,20,22,30,34,48
Lack of Local Participation	23,24,27,28,33,36,37,39
Lack of Communication	11,42,43,44,45,48,50,51
Corruption	1,3,11,13, 20,39
Competition	8,23, 24,33,46
Lack of Transparency	5, 11,20,21,35
Lack of Time	6,16,22
Lack of Effort	47,50,51
Lack of Interest	2, 11,14
Other	7,17
Fast Turnover	21
Lack of Knowledge	48

N=48
DK/NR Did not know or No Response

Many respondents were unable or chose not to identify any potential problems with stakeholder collaboration. The operators who could not identify any problems were all Indonesian (a fast boat operator and some small accommodation staff). Other respondents unable to identify problems included: some locals, the educators, and a tourist. None of these respondents were part of any of the networks previously identified in this study. Their separation from partnerships on the island therefore may have resulted in their inability to identify problems while working with other stakeholders. A local explained that relationships were very strong among different stakeholder

groups, and that operators were very good and willing to support local initiatives on the island (Interview # 25, 2010). Conversely, stakeholder conflict, local participation, and communication were each mentioned by many respondents as possible problems with stakeholder collaboration. Regulator, operator, ENGO, and educator stakeholder group responses were spread fairly evenly across all identified problem categories. However, locals and tourist responses were similar to individuals within their own stakeholder group. Each problem is discussed below revealing patterns within and among stakeholder groups.

5.4.1.1 Stakeholder Conflict

Relationships were identified as a possible problem by most stakeholder groups: regulators, operators, locals and tourists (Interview# 1, 9, 11, 20, 22, 30, 34, 48, 2010). Specific relationships that were identified as possible problems included relationships between: locals and the Indonesian government, between the two ENGOs, businesses and locals, any individual and the head of the island, tourists and locals, and among local regulators. Most of these relationships have already been discussed in previous sections, but some are new.

The Indonesian Government and the locals of Gili Trawangan have a very troubled history. As such the locals essentially feared the possibility of working in collaboration with the government. A local regulator explained that the Indonesian government "wants to take away the local people from this island. And this is really not good. The government system is like criminal to local people" (Interview #1, 2010). And ENGO explicitly stated that they did not want to work in collaboration with the government "no government, just local" (Interview #39, 2010). In addition, there were strained relationships among local regulators. "The problem is that some of Satgas won't meet the head of the village, and this head of the village doesn't speak with the one that's head of all three islands" (Interview # 11, 2010). The poor relationships among stakeholders in such a small community were widely recognized and may be large barriers to stakeholder collaboration to promote conservation.

5.4.1.2 Lack of Local Participation

Many local respondents, a couple of local tour operators, and an individual from an ENGO identified local participation as a potential problem with stakeholder collaboration (Interview # 23, 24, 27, 28, 33, 36, 37, 39, 2010). Locals explained that they may not participate because they were unsure if they would be treated as equal. Their wish was to actually work together rather than work for expatriates in the process (Interview # 27, 28, 2010). Other locals explained that depending on how the process was developed and introduced, local participation may be a problem. They suggested that if the process was introduced as a local idea to help the locals and their island rather than an expatriate idea being imposed, then local participation would likely be more successful (Interview #36, 37, 2010).

5.4.1.3 Lack of Communication

The majority of tourists (seven out of ten) and a dive shop owner stated that communication would likely be a problem in a collaboration among stakeholders (Interview# 42,43,44,45,48,50,51, 2010). "Probably language could be an issue. Like do locals speak English? And also I guess the tourists don't really all speak English either, right so yeah... definitely language" (Interview #42, 2010). A dive shop owner explained that a general lack of communication among stakeholders on the island had created misunderstandings in the past regarding the Ecotrust's management of funds. This has lead to stakeholder conflict in the past (Interview # 11, 2010).

5.4.1.4 Competition

Competition was identified by some respondents: operators, a local and a tourist. An operator explained why competition was increasing on the island, and straining relationships between dive shops: "the more development and people, the more competition and the more problems. So it's getting difficult. There is still room for everybody, but still, we don't know for sure. They are starting to build new [dive shops] and we need to make SURE they work with us. Because when there are too many, it's just business competition and after all the spirit is lost I think. And I don't want to see that" (Interview # 8, 2010). This type of competitive mentality may be seen if stakeholders collaborate for sea turtle conservation on the island. Another operator expressed that stakeholder collaboration would be great for sharing knowledge and for improving the hatchery. However, there was an expressed concern that business would interfere with the conservation aspect, and that tourism might dominate over conservation (Interview # 23, 2010). A local said that collaboration was difficult in Gili Trawangan because "people just think about themselves and money" (Interview # 33, 2010).

5.4.1.5 Lack of Interest

A lack of actual interest in sea turtle conservation was identified as a problem by some respondents: a regulator and a couple of operators (a dive shop and large accommodation) (Interview # 2, 11, 14, 2010). An individual who was involved with founding the Ecotrust and therefore has had experience with stakeholder collaboration on the island suggested that although many individuals on the island said that they were interested in helping with many projects, when it came down to action, they were unwilling to help and participate (Interview # 11, 2010). Interest plays a crucial role in stakeholder collaboration, and although it was not frequently identified as a problem, it is important for this study.

5.4.1.6 Other

A couple of operators identified potential problems that were categorised under "other." The manager of a dive shop explained that successful collaboration on the island was completely case-by-case and that it was therefore difficult to identify problems before a collaborative attempt was made. "I think you really have to look at it on a case by case basis. Sometimes it goes really well, and sometimes it goes horribly wrong. There's no hard and fast rule on this island about who cooperates with who, and it varies. As I said, sometimes it goes really well and sometimes it doesn't" (Interview #7, 2010). An expatriate owner of a small accommodation explained that the hatchery would likely not change even with stakeholder collaboration because management would not change. "I don't think you necessarily need a partnership... like I think it's [the turtle hatchery] a monopoly anyway... I mean, [the current owner] is just going to control it."

Corruption, transparency, time, effort, knowledge, and a fast turnover of people on the island were all other potential problems identified by respondents regarding stakeholder collaboration. Each has been discussed in previous sections, and stakeholders explained that these factors also played a role in being potential barriers to stakeholder collaboration in general on the island.

5.4.1.7 Summary

Stakeholder conflict, communication and local participation were the most frequently identified potential problems to stakeholder collaboration. Many other potential barriers were identified and are important in this study.

Locals were most concerned with being treated equally in a partnership, and tourists largely identified communication as a potential problem. Beyond these two stakeholder groups there were no other groups that identified one problem most frequently. The identification of actual problems by all stakeholder groups on the island helped to examine the reality of a multi- stakeholder collaboration as an opportunity on the island.

5.4.2 Overcoming Barriers to Sea turtle Conservation in Gili Trawangan

Barriers to sea turtle conservation have been presented previously. As this study aims to examine the reality of promoting conservation through sea turtle tourism, it was necessary to examine stakeholder perceptions and ideas on how to overcome barriers in this area. This section examines incentives and ideas as presented by interviewees on how to overcome previously examined barriers.

5.4.2.1 Incentives

A couple of respondents (an ENGO and a restaurant owner) identified recognition as an incentive to help increase sea turtle conservation in Gili Trawangan. This was the only incentive identified by any respondents. Almost all respondents stated that no incentives were necessary to help increase sea turtle conservation on the island. Most tourists stated that simply knowing that you are helping and not harming the place you are visiting is enough to participate in a conservation effort (Interview# 42, 47, 48, 49, 50, 51, 2010). A local explained that incentives were not necessary because sea turtle conservation is a responsibility, and wanting to help protect the species should come from within (Interview #24, 2010).

5.4.2.2 Ideas Presented to Help Increase the Success and Overcome Barriers to Sea Turtle Conservation in Gili Trawangan

Besides incentives, interview participants were asked how barriers to sea turtle conservation could be overcome. Responses were organized and categorized and are presented in Table 5.17.

Table 5. 17: Stakeholder Ideas on Methods to Help Overcome Barriers to Sea Turtle Conservation in Gili Trawangan

Ideas to Overcome Barriers to Sea Turtle Conservation on Gili Trawangan	Respondents
Increase Education and Available Information	1, 5, 7, 8, 20, 22, 30, 35, 36, 42, 44, 45, 47-51
DK/NR	2, 12, 14, 18, 19, 26, 27, 28, 31-34, 37, 40, 41, 43, 46
Money	3, 5, 9, 13, 17, 25, 39
Increase Tourist Involvement	6, 8, 11
Guidance	15, 36
Other: Fix the relationship between the Ecotrust and the Hatchery	39

N=48
DK/NR Did not know or No Response

Many respondents were unable to provide any ideas on how to help overcome barriers, and also stated that incentives were unnecessary. The operators, the regulator, and educators who could not identify any barriers were all

Indonesian. Most local respondents presented no ideas on how to overcome barriers. This could suggest that local and Indonesian respondents may not have the ability to identify ideas to overcome barriers in sea turtle conservation. This may be because they are not linked to conservation and therefore are not very knowledgeable about sea turtle conservation. As such, the DK/NR results suggest that increasing stakeholder knowledge in general may be a method to help improve sea turtle conservation on the island.

5.4.2.2a Increasing Education

Increasing education was the most frequently identified idea to overcome barriers. Various target groups and methods were identified: increase local education through children at school (Interview # 20, 35, 2010), increase expatriate knowledge of local customs/tradition to help improve relationships and the ability of locals and expatriates to work together (Interview #5, 2010), and lastly, provide easily accessible and understandable information for educating tourists on sea turtle conservation (Interview # 1, 8, 20, 35, 42, 44, 45, 47-51, 2010). Almost all of the tourist respondents (eight out of ten) stated that they wanted to know more about the sea turtle conservation practices on the island to ensure that they knew that they were helping rather than harming the island during their stay (Interview # 42, 44, 45, 47-51).

An individual from an ENGO explained that "the main thing is what [locals] learn in school...education first. Also, when people go to the conservation area they should be able to meet someone there with good English, and to see what's being done instead of them just coming and taking a couple of photos " (Interview #35, 2010). An operator explained that to help increase tourist education "you could have an information package. For example you could have that in all the [accommodation] rooms and I'm sure the guesthouses wouldn't have a problem with that. And that could be produced by the Gili Ecotrust and sponsored by all the local businesses on the island" (Interview #6, 2010). Another local operator explained that they did not know enough about local culture to know about collaborating with locals, especially regarding sea turtles. She explained that first a certain level of knowledge on how the locals value sea turtles must be met before proceeding in sea turtle conservation (Interview #5, 2010). "I don't know if eating the turtle eggs, if there's any sort of cultural value to that. And I think we need to find out to determine how they feel about it" (Interview #5, 2010). Education was identified as a way to overcome problems by all stakeholder groups except for educators. This finding could suggest that educators themselves need to be educated in terms of their importance to the livelihood of locals and other stakeholders on the island, or it could also suggest that the educators see a limitation to the education system on the island and therefore do not see education as a method of overcoming barriers.

5.4.2.2b Money

Money was stated by a few respondents (a regulator, some operators, a local and an individual from an ENGO) as a method to overcome barriers to sea turtle conservation. However, only an individual from an ENGO identified what purpose the money could serve. They explained that it could be used for daily operations at the hatchery, to increase technology to help circulate the water in the tanks at the hatchery, and to help ensure that electricity is always provided to the hatchery (Interview# 39, 2010). This demonstrated that money may be helpful in the area of conservation; however, there may not have been a concrete plan for the use of the money and therefore it is an unlikely primary solution at the present time.

5.4.2.2c Increasing Tourist Involvement

Increasing tourist involvement in the hatchery project was presented by some respondents, all from expatriate dive shops. Allowing tourists the opportunity to actively get involved with sea turtle conservation could let tourists develop a more personal connection to the island which may even increase environmental conservation on the island (Interview #6, 11, 2010).

5.4.2.2d Guidance

A local and an Indonesian staff member at a small accommodation suggested that getting a knowledgeable person involved, who specialises in sea turtle conservation through tourism, could be a benefit to conservation on the island. A local explained that the community really needed someone to start sea turtle conservation and in doing so, educate everybody (Interview #36, 2010).

5.4.2.2e Other

An individual from an ENGO mentioned that mending the strained relationship between the ENGOs would help to overcome barriers in conservation on the island (Interview# 39, 2010).

5.4.2.3 Summary

Many realistic ideas to help overcome problems associated with sea turtle conservation were presented by interviewees. This type of information is important to obtain from stakeholders, because if this project is to be sustainable, stakeholders need to be involved and contribute to the process. Recognition was the only identified incentive. Locals and some other Indonesians had difficulty identifying ways to overcome possible problems with conservation on the island. Perhaps this was because they had little to no connection with conservation. Therefore, their perceptions were important to obtain to ensure that their stakeholder groups were considered. Increasing education, money, guidance, tourist involvement, and mending relationships were also important ideas presented by stakeholders to overcome problems associated with conservation on the island.

5.4.3 Future Potential Networks Regarding Sea Turtle Conservation in Gili Trawangan

Interview respondents were asked if stakeholder partnerships for sea turtle conservation were realistic, and if so, which stakeholder groups could work together. They were presented with a list of stakeholder groups (regulators, operators, locals, ENGOs, tourists and educators) and asked if these groups could realistically collaborate to promote conservation through sea turtle tourism. Responses are presented in Table 5.18.

Table 5. 18: Is Stakeholder Collaboration Regarding Sea Turtle Conservation and Tourism Realistic on Gili Trawangan?

Realistic	Respondents
Yes, with identified stakeholder groups	6, 7, 11, 12, 15, 16, 17, 20, 22, 23, 25, 27, 28, 29, 34, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51
Yes, but with more stakeholder groups	1, 3, 24, 31, 33, 35, 36, 37, 39
Maybe	2, 5, 13
No	14, 18
DK/NR	8, 9, 19, 21, 26, 30, 32

N=48
DK/NR Did not know or No Response

There were a few themes that emerged through discussions on this topic: guidance to increase the possibility of collaboration; independent stakeholders that may hinder collaboration; and education as a method to help a collaborative effort. These themes are discussed in the following sections and further support responses as shown in Table 5.21.

5.4.3.1 Stakeholder Collaboration is Realistic

Most respondents stated that collaboration was realistic among stakeholders on Gili Trawangan (Table 5.21). "It would be nice if everybody got involved. It will only work if we all get involved, not just if a few of us come together" (Interview #11, 2010). The majority of respondents stated that regulators, operators, locals, ENGOs, tourists and educators could realistically work together toward sea turtle conservation.

5.4.3.2 Guidance

Some respondents stated that collaboration was realistic, but with more stakeholder groups (Table 5.21). Some respondents stated that a nearby University could get involved and help to improve the current sea turtle program (Interview# 1, 3, 31, 35, 36, 37, 39, 2010). A couple of respondents said that a specialist from off-island should be brought to the island to help develop a strong conservation and tourism program involving stakeholder collaboration (Interview # 24, 33, 2010). A regulator stated that the WWF could be a potential stakeholder to help guide everyone in the development of a program (Interview # 1, 2010). Interestingly, nearly all respondents (eight out of nine) who suggested that including other stakeholders to increase in guidance may be beneficial were Indonesian. The exception was an individual from an ENGO who is an expatriate. Indonesians seemed to look beyond Gili Trawangan for guidance regarding sea turtle conservation and tourism.

A regulator stated that collaboration "is what I want, yes. I think we all need to come together to protect the turtle. Look after together, care together" (Interview #1, 2010). This respondent further explained that they wanted to develop a strong and constant relationship with a nearby University and the WWF. In the past, WWF and a nearby University have shared some information regarding best practices, but this respondent expressed the desire to develop and maintain a constant (rather than occasional) relationship with nearby institutions and organizations (Interview #1, 2010). An individual from an ENGO explained that it would be great if students, as part of their studies at the nearby University would frequently come to the island and educate locals and tourists about sea turtle conservation and

tourism (Interview # 35, 2010). This respondent explained that guidance from off of the island may be beneficial due to their perceived lack of knowledge regarding sea turtle conservation on the island, and the existing stakeholder conflicts specifically between the ENGOs (Interview # 35, 2010).

5.4.3.3 Independent Stakeholders

Respondents who stated that collaboration might be realistic explained why they believed this. A regulator simply stated that they usually just worked alone and not with other people in general, so they were not convinced that regulators would be a part of collaborative efforts towards sea turtle conservation (Interview #2, 2010).

Only a couple of respondents (an individual from a large accommodation, and an individual from a small accommodation) directly stated that collaboration among stakeholders was not realistic (Table 5.21). They both stated that they have their own accommodation and tour boats, and that their prime goal was to make tourists happy, so they had little interest in collaboration and did not realistically see other businesses collaborating either (Interview# 18, 2010).

5.4.3.4 Education

A dive instructor expressed that although their dive shop would participate in a collaborative effort, they had some concerns about a few locals in sea turtle conservation. "The thing that I'm concerned about is the locals, like the ones who run the glass bottom snorkel tours. They're not so well aware of conservation" and managing local tour operators can be very difficult (Interview #5, 2010). Lastly, another operator stated that collaboration might be realistic, but there were a lot of barriers (as previously examined) that first needed to be overcome, including education (Interview# 13, 2010).

5.4.3.5 Summary

The majority of stakeholders believed that collaboration was realistic on the island. Some respondents (largely Indonesians and locals) explained that expanding stakeholder collaboration beyond current stakeholders to increase guidance may be beneficial. Education, stakeholder conflict, and stakeholder independence were the main reasons why respondents stated that collaboration involving all of the stakeholder groups may be difficult.

5.4.4. Perceived Benefits of a Multi-Stakeholder Collaboration to Promote Conservation through Sea Turtle Conservation

Perceived benefits are an important part of understanding the process of collaboration (Selin and Chavez, 1995). If stakeholders do not perceive any benefits from collaboration, their participation may be limited (Selin and Chavez, 1995). Respondents were questioned about the perceived benefits from a multi-stakeholder partnership aimed to conserve sea turtles in Gili Trawangan. Some respondents did not identify a link between sea turtles and their stakeholder group, and therefore did not understand how developing a partnership to help conserve this species could be of much direct benefit to them. The following sections discuss the responses regarding benefits and are organized into categories.

5.4.4.1 Positive Benefits

Responses demonstrated that tourists were the main group that considered the development of a multi-stakeholder collaboration to benefit to them. Almost all tourists (eight out of ten) stated that their trip would benefit

from participating in a multi-stakeholder collaboration aimed at conserving the sea turtles. "I think that I'd benefit from it, in a selfish way, 'causeyou know you're doing something good and it makes you feel better, and you're also doing something to help others" stated a tourist (Interview #48, 2010).

Some operators (a few individuals from dive shops and an owner of an accommodation) said that their operation would benefit from participating in a multi-stakeholder collaboration to protect sea turtles (Interview # 5, 7, 8, 17, 2010). "Anything to do with marine ecology is for our benefit and the benefit of everybody because that's one of the main reasons that people come to the island" (Interview #7, 2010). The dive shops rely on the marine environment while the small accommodation owner previously stated that due to their location, the marine environment in front of their operation was important for attracting tourists. These respondents were also all expatriates and therefore perhaps more educated in sustainability and able to link conservation with benefits to themselves in the future.

Some locals stated that they would benefit simply because it would make them feel as though they were positively contributing to the island but did not explain any further benefits (Interview # 20, 26, 30, 34, 2010).

5.4.4.2 No Benefit

Most other respondents seemed confused by the question, and there was a great lack of responses. Half of the respondents (all of the educators, 11 out of 18 operators, nine out of 13 locals, and two out of 10 tourists) simply stated that they were unsure or unable to respond. Some stakeholders automatically assumed that benefits were linked to finances. A dive shop manager said explained that their dive shop would not benefit from a partnership but also expressed that benefits were unnecessary because "...We should be bloody protecting the turtles, protect everything out there...Whether it brings business or it doesn't. I don't think it should be driven by business. It should just be something that we want to do" (Interview #9, 2010).

A restaurant manager explained that his business would not benefit from participating in a collaborative effort, but that they would still participate because everyone in the community is very supportive of one another and that benefits do not play a large role in participation rates on the island (Interview #22, 2010). An individual from an ENGO, although very supportive of collaboration, stated that their ENGO would not directly benefit from the collaboration "the sea turtles would benefit, but not us" (Interview #35, 2010).

5.4.4.3 Summary

Although the discussion on benefits yielded few responses, the responses obtained indicate that tourists were the group that recognized the most benefit in a multi-stakeholder collaboration. However, many respondents stated that, even though they could not identify any benefits, that this did not mean that they would not participate. The community believed that the benefits from and the participation in a collaboration to increase the well being of the community were weakly related.

5.4.5 Leadership for Conservation through Sea Turtle Tourism on Gili Trawangan

Leadership is an important aspect of the collaborative process (Gray, 1985; Selin and Chavez, 1995). Interviewees were asked who the leader or convenor of sea turtle conservation should be. They were also told that if

they could not identify a particular individual, then they could describe qualities in a good leader for the position. Table 5.19 presents the overall results. Some respondents (locals) identified more than one leader.

Table 5. 19: Good Leader or Convenor for Sea Turtle Conservation in Gili Trawangan

Identified Good Leader	Frequency						
	Regulators	**Operators**	**Locals**	**ENGO**	**School**	**Tourists**	**Total**
Owner of Hatchery	1	6	**8**	1	1	0	17
Head of the Ecotrust	0	**8**	3	0	0	0	11
No leader	1	2	2	0	1	0	6
Other	1	1	1	1	0	0	4
External (someone from off-island)	0	0	1	0	0	0	1
DK/NR	0	1	1	0	0	**10**	12
Total Number of Stakeholders per group	3	18	13	2	2	10	

N=48
DK/NR Did not know or No Response

Most respondents stated that the owner of the turtle hatchery would be a good leader/convenor for sea turtle conservation in Gili Trawangan while many identified the head of the Ecotrust. Some respondents explained that no leader would be good. "I think we don't need a leader, we just need to all work together, no leaders" (Interview #24, 2010). The category "other" includes: a local who stated that the ENGOs together would be good leaders (Interview #37, 2010); a regulator who stated that they themselves should be the leader (Interview #3, 2010); an individual from an ENGO who identified the owner of an accommodation to be a good leader (Interview # 35, 2010); and lastly an operator who identified the Indonesian government as a good leader (Interview #15, 2010). Only one respondent stated that an off-island expert should be brought to Gili Trawangan to lead the project. Not surprisingly, all tourists were unable to identify any individuals on the island as a good leader.

The fact that only one respondent identified an off-island expert to be the leader is important for this study. Guidance has been an important theme throughout the analysis. However, this finding suggests that stakeholders would like guidance, but not a leader. Therefore, they would like a knowledgeable individual to teach and share knowledge with current stakeholders, but ideally the current stakeholders would learn and sustain the project on their own. This is an important finding, as sustainable livelihoods approach supports the idea of transferring knowledge, but ensuring that the local community remains involved in their livelihoods.

A few themes emerged during the discussion around leadership possibilities. Once again, stakeholder conflict, corruption and a divide between expatriates and Indonesians were apparent. These themes are discussed in the following sections in relation to stakeholder responses regarding leadership as presented above.

5.4.5.1 Stakeholder Conflict

A local stated why she thought that an external person with no connections to the island would be a good leader/convenor for this particular project. She explained that relationships in Gili Trawangan were very complicated as the owner of the hatchery was also the head of the island. It would be better to have someone external lead the project because they would have to work alongside the owner (Interview # 20, 2010). "It's really just a matter of having the right person approach him [the head of the island/owner of the hatchery] in the right way" (Interview # 20, 2010). She explained that the leader would need to be someone who the owner respects, but someone who will not suffer any consequences (like being forced off the island) if the relationship or project does not work out (Interview # 20, 2010). This individual also explained that the head of the Ecotrust and the turtle hatchery owner already have a fragile relationship and it likely will not improve. She explained that an external individual who understands how to link sea turtle conservation alongside the business aspect of obtaining tourism would be an ideal leader on the island (Interview #20, 2010). The ability to link both tourism and conservation may be difficult when dealing with multiple stakeholder groups, and the leader of this type of project must be aware of this potential conflict.

5.4.5.2 Corruption or Conflict

Corruption/conflict is a theme that emerged from this section when reviewing how some stakeholder groups responded to this question. The results varied among and within stakeholder groups. As previously stated, the owner of the turtle hatchery was also the head of the island, so some locals may have felt uncomfortable not identifying this individual as a good leader for sea turtle conservation and tourism to avoid potentially risking their livelihood. Many locals identified the owner of the hatchery as a good leader/convenor (25, 27, 28, 30, 31, 32, 36, 37, 2010).

5.4.5.3 Divide Between Indonesians and Expatriates

While most locals identified the local owner of the hatchery as a good leader, most expatriates on the island identified the expatriate head of the Ecotrust as a good leader (Interview # 6, 7, 8, 9, 16, 22, 36, 37, 2010). Expatriate respondents, representing operators, most frequently identified the expatriate head of the Ecotrust as a good leader/coordinator, whereas local and Indonesian operators identified the Indonesian manager of the hatchery as a good leader (Interview # 11, 12, 13, 14, 18, 23, 2010). This divide may be a result of the difficult history that the island has faced in terms of conflict between expatriates, the Indonesian government, and the local population of Gili Trawangan (as discussed in Chapter 3: Research Setting).

The majority of the dive shops identified the head of the Ecotrust as a good leader. While the others who identified the head of the Ecotrust were expatriate respondents except for one who was an Indonesian manager of a restaurant (Interview # 6, 7, 8, 9, 16, 17, 21, 22, 2010). " [the head of the Ecotrust]: massive passion, massive drive, and she's got a little bit of French fight in her as well. I think most of the [local people] respect her. She speaks their language fluently" (Interview #9, 2010). Another operator explained that the head of the Ecotrust "is super fantastic, really knowledgeable, and I think she does a nice job. It's not always an easy job ...I think very rarely is it an easy job. She is fantastic in the sense that she not only has a super amount of knowledge of the marine environment, but also of the island. And she speaks bahasia (Indonesian) as well which of course then helps. Also she's been here a long time, so she knows a lot of people and they respect her" (Interview# 6, 2010). An individual from an ENGO did not

respect the head of the Ecotrust and expressed that she was highly critical of their work with little follow through of these comments (Interview #39, 2010).

5.4.5.4 Characteristics of a Good Leader

Some respondents who lived on the island (four operators, one regulator, and one local) did not identify an individual on the island who would be a good leader, or identified an individual, and also identified qualities that any leader of this type of project should possess. No tourists identified an individual who would be a good leader, but half of the tourists identified characteristics that they believed would be beneficial. These combined respondents explained that the leader should: have the best interest of the island's community at heart (and not simply push their own ideals) (Interview #2,7, 2010); be an expatriate and marine biologist who has lived on the island for many years (Interview # 5, 48, 2010); be respected by most individuals on the island (Interview #9, 2010); have strong language skills (Interview # 5,9); be a local to encourage local participation and so that local customs are accounted for (Interview # 11, 50, 2010); be highly motivated (Interview #17,2010); be very interested and be educated or an expert in methods to promote conservation in sea turtle tourism (Interview #9, 2010). A couple of tourists stated that leadership should be a combined effort between a local and an expatriate so that more values are represented (Interview # 44, 45, 2010).

Motivation, education, interest and respect were prime characteristics identified in an ideal leader. These characteristics are parallel to findings by Selin and Chavez (1995) who found that a strong willed and enthusiastic leader helped to act as a catalyst to bring various interests of stakeholders together in the collaboration process.

5.4.5.5 Summary

Overall, it is evident that there were many conflicting views regarding leadership for this type of project. Corruption, stakeholder conflict and a divide between expatriates and Indonesians seemed to play a role in the identification of a good leader for this study. In addition, although there seemed to be suitable individuals on the island, the identified individuals did not view and did not wish to be viewed in this type of role. This lack of leadership on the island may itself act as a barrier to stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan.

5.4.6 Financing Sea Turtle Conservation on Gili Trawangan

All stakeholders were asked how sea turtle conservation should be financed. Results were categorized and are presented in Table 5.20.

Table 5. 20: Source and Method in which Stakeholders Perceive that Sea Turtle Conservation should be Financed in Gili Trawangan

Source of money	Method of Support	Frequency						
		Regulator	Operator	Local	ENGO	Tourist	Educator	Total
Tourists	All (three below) Combined	2	7	7	1	6	0	23
	Tourists should donate	2	4	7	1	1	0	15
	Tourists should pay some sort of tax	0	2	0	0	4	0	6
	Tourists should be involved in a sponsorship project for sea turtle conservation	0	1	0	0	1	0	2
Local Business	All (three below) Combined	0	3	6	0	0	0	9
	Dive Shops should provide funding	0	2	2	0	0	0	4
	Expatriates with businesses on the island should provide funding	0	0	3	0	0	0	3
	All businesses should donate	0	1	1	0	0	0	2
Government Funding		1	1	1	0	5	0	8
The Gili Ecotrust		0	4	0	1	0	0	5
Fundraisers		0	1	0	0	2	0	3
Off-Island Grants		0	2	0	0	0	0	2
No Funding Needed		0	1	1	0	0	0	2
Entrance Fee at Turtle Hatchery		0	0	1	0	0	0	1
DK/NR		1	6	4	0	0	2	13
Total Respondents per Stakeholder Group		3	18	13	2	10	2	

N = 48

DK/NR Did not know or No Response

Many Indonesian respondents from the operator and local stakeholder groups did not respond to this question. Some expressed that, because they were not directly linked to the project, they should not comment on this type of question. As such, their responses are included in the DK/NR row. The discussion on financing has been divided into the various sources as identified in Table5.20

5.4.6.1 Source: Tourists

All stakeholder groups identified tourists as the preferred source of financing sea turtle conservation. Almost half (23 out of 48) of the stakeholders believed that sea turtle conservation should be financed by tourists. The majority of the stakeholders who believed that tourists should be the source of funding further believed that the financing should be by means of donations. Some respondents believed that tourists should pay some form of additional (in addition to the 50 thousand IDR Ecotax) tax (e.g., a tax that is paid in on arrival on the island) while a few believed that the best method was to involve tourists in a sponsorship project (e.g., monthly sponsoring of a sea turtle through a project). Most tourists stated that they should be the source of financing conservation on the island, although the way in which they wanted to finance the project was different from other stakeholder groups' preferences.

5.4.6.1a Tourists' Preferred Method of Financing

Tourists were asked specifically how they would be willing to support sea turtle conservation on the island. Their desired methods of supporting sea turtle conservation were quite different from desired methods identified by other stakeholder groups. Almost all tourists (nine out of ten) stated that they would most like to participate in an activity (fundraising, education, or a tour) that supported sea turtle conservation. Half of the tourists stated that they would pay a tax (in addition to the 50 000 IDR Ecotax). Lastly, a couple of tourists stated that they would most like to become involved in sponsorship (e.g., monthly donations to a transparent and professionally managed project). A few tourists added that they may donate to a project in the future if it was transparent and they knew exactly how their donations were being used (Interview #44, 46, 47, 48, 2010). "If I knew where the money was going and knew more about it then I wouldn't say no straight away. I would definitely be willing to listen and then make a judgement properly" (Interview # 48, 2010). No tourists said that they would like to donate to the current turtle conservation project on the island (the turtle hatchery).

Tourist responses demonstrate that the current method of donating on-the-spot to sea turtle conservation was not an appropriate method of obtaining their support. They found that the project did not specifically outline how donations were used and therefore tourists were not convinced that their donations would be used wisely. Like many other tourists, one respondent explained that "[at the current sea turtle hatchery on the island] I didn't really give money 'causeI don't understand it....it really does depend on what I'm doing. Like I'd be willing to pay a 20 dollar tax to come to the island, but I'm not going to likely give them 20 dollars down at that hut [the hatchery]. But I might also pay 20 dollars for an activity if it was fun and I benefitted from learning about the turtles, and like I knew that it was good [for the turtles]" (Interview # 42, 2010).

Half of the tourists would be more willing to pay some form of tax or organized method of sponsorship (e.g., monthly donations to support a sea turtle) rather than donate on the spot to the current project. However, both a tax and organized support would only be accepted by tourists if the project was more organized and transparent and

offered a type of proven beneficial activity or educational experience. Almost all tourists (eight out of ten) stated that the lack of transparency of the sea turtle conservation project is why they either donated (or will donate) a very minimal amount of money, or did not donate at all (Interview # 42, 43, 44, 45, 46, 47, 48, 49, 2010).

5.4.6.2 Source: Local Businesses

Local businesses were the second most identified source of financing for sea turtle conservation; some respondents (nine out of 48 respondents) believed that local businesses should be the financial source. Local respondents made up the majority of this response. They emphasised that either dive shops or expatriate owned businesses should be the main source of funding. Some stated that they wanted to see businesses give back to the island and help support sea turtle conservation on Gili Trawangan (Interview# 27, 28, 2010).

5.4.6.3 Other Sources

Government funding, the Gili Ecotrust, fundraisers, off-island grants, and entrance fees at the turtle hatchery were all other ways in which stakeholders wanted sea turtle conservation to be financed on the island. These ideas are discussed below.

Local businesses and off island grants/funding were other suggestions for financial support. A local accommodation owner explained that "the donations ...that's like pocket money. What it needs is an injection but also someone who is responsible to manage it all. Like an NGO, but definitely...the big hotels, anyone who wants to have a presence here, maybe not even necessarily from this island, but like Lombok. I mean, what a great way to get in....that's the way it is in the world...." (Interview #17, 2010).

Some respondents (primarily operators) stated that finances should come from the Gili Ecotrust, as that is its role on the island. A dive shop manager explained that "that's the whole point of the Gili Ecotrust, and the 50 000IDR is that it's used to protect around here as much as we can. And the sea turtles are involved with that also" (Interview #9, 2010). However, this is a common misconception. The Gili Ecotrust was not (at the time of the study, and has never in the past) supporting sea turtle conservation due to a lack of project transparency and confidence in how the money would be used (Interview #11, 35, 2010).

Some locals seemed to be against implementing an entrance fee because they believed it could create harsh feelings between tourists and locals. As a result, donations and funding or grants were their favoured options (Table 5.23). A local regulator suggested that "tourists should just give money when they come and look at the turtles" (Interview #3, 2010). This respondent did not want to force people to pay because this could create bad feelings toward the hatchery, but he did want all tourists to donate (Interview # 3, 2010).

An individual from an ENGO managing the hatchery explained that more money was needed for the project, but that he did not want to force tourists to pay an entry fee because it may make tourists unhappy (Interview # 39, 2010).

Government funding was suggested by half of the tourists, and accounted for most of the times it was mentioned. However, in reality, Gili Trawangan is very isolated from the Indonesian Government, and finances are an area of corruption in Indonesia which is likely why very few other stakeholder groups even mentioned the government as a possible source of finance. In addition, a regulator explained his past attempts to obtain funding from the government for sea turtle conservation: "I already talked to the government, but the government wanted to

take too much of the money we would get. So I didn't want to join with them. This is not balance. Not good" (Interview #3, 2010).

5.4.6.4 Summary

Overall, there was a clear difference in opinion between how stakeholders perceive that sea turtle conservation should be financed. The majority of respondents stated that tourists should donate money. Meanwhile tourists were not being given information on how their donations were used and therefore they did not donate. This conflict likely resulted in a lack of funding necessary to maintain an adequate conservation program on the island, and is likely the reason that a lack of resources, specifically money, was identified as a barrier. This area of the study is a prime example of why stakeholder analysis is imperative in environmental management. If stakeholder perceptions are not obtained, management is not reflective of their perceptions and faces many difficulties.

5.4.7 Conclusion

The qualitative results outlined in this chapter demonstrate stakeholder perceptions regarding various key elements that are ultimately linked to stakeholder collaboration to promote conservation through sea turtle tourism. The sections examined in this study revealed the true importance of stakeholder analysis in sustainable tourism development. The areas examined in this chapter focused on Selin and Chavez (1995) tourism partnership model (especially the antecedents and problem setting phases) applied to Gili Trawangan's stakeholders.

This chapter revealed some important key factors influencing stakeholder collaboration. A lack of education/awareness regarding sea turtles, economic considerations, management structure, regulatory corruption, a general disconnect to the island, and stakeholder conflict all proved to be prime barriers identified in this study. The following chapter discusses the key findings of the study.

Chapter 6: Discussion of the Study's Key Findings

The findings were similar to other studies involving sustainable tourism development (as discussed in Chapter 2). Several of the key findings can be applied to tourism development in small islands. Listed below are the six key findings that influenced stakeholder collaboration:

1. Level of education/awareness regarding sea turtles

2. Financial considerations

3. Management Structure

4. Regulatory Conflict

5. General Disconnect to the Island

6. Stakeholder Conflict

Many of the findings were closely interrelated. For example, a lack of education or awareness regarding best practices of sea turtle tourism seemed to result in stakeholder dissatisfaction and also influence the management of the project.

Natural and cultural threats to sea turtle populations were low in Gili Trawangan. There were no racoons, dogs or foxes on the island, and the local people were not spiritually bound to sea turtles (they did not sacrifice them for ceremonies). Some locals stated that they occasionally used turtle eggs as a medicine to treat stomach pains, but would never kill an actual hatched sea turtle (Interview #25, 2010). The following six key findings discuss the main influences upon stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan, Indonesia.

6.1 Level of Education/Awareness Regarding Sea Turtles

A lack of education and awareness regarding sea turtles in general in Gili Trawangan could be a key barrier to stakeholder collaboration in this study. As discussed in the literature review, a perceived crisis, common vision, existing networks, leadership and incentives are all antecedents that were conducive to the initiation and development of stakeholder collaborations in tourism (Selin and Chavez, 1995). This study revealed that a lack of education could have been a prime barrier to stakeholders perceiving a crisis regarding sea turtles in Gili Trawangan. In addition, education and awareness were frequently found to be barriers to the stakeholders' perceptions of a common vision, leadership, networks and incentives. This section discusses the many areas of the study that revealed education as a possible barrier to the development of multi-stakeholder collaboration.

Many stakeholders were unable to see the need for, or benefit of, stakeholder collaboration to promote conservation through sea turtle tourism. In order for multi-stakeholder collaboration to promote conservation through sea turtle tourism successfully, a certain level of knowledge regarding the importance of sea turtles to the local community's livelihood must be present.

Among participants, certain stakeholder groups seemed to not be able to link the marine environment and sea turtles to themselves, and only expressed the link between tourism and sea turtles. As Gili Trawangan completely depended on tourism (which depended on the marine environment, and especially sea turtles), all stakeholders livelihoods therefore relied on sea turtles and the marine environment. Operators in particular expressed a somewhat weak link between sea turtles and tourism; however, they explained that it was the marine environment that was the

strongest attraction for tourism on the island. Consequently, they did not contribute to, or seem to see the need for, sea turtle conservation.

Educators explained that there was no link between education and the marine environment, and that sea turtles at the time of the study had little focus in the school. Children are the future of the island, and the education system had no focus on the environment, but was completely concentrated on hospitality and tourism.

Some respondents (including local Indonesians) expressed that Indonesian culture is focused on the present rather than the future. A local explained that the "Indonesian way" is to earn money for now (Interview #30, 2010). Sustainability focuses on preserving resources for continued use into the future, so this may suggest that it could be useful for Indonesians to gain an understanding of how they could earn money in the present while also considering the preservation of their resources for continued use into the future.

Next, when sea turtles were acknowledged as important resources to protect, respondents seemed to express a general lack of understanding regarding effective conservation and tourism techniques. One accommodation manager explained that to draw tourists to their business they "built a turtle tank, but it was so poorly built and it was so badly maintained and we didn't have any idea what to do...only six of 80 turtles survived" (Interview #16, 2010). Sea turtles were associated with immediate financial gain. A lack of education was exacerbating the need to promote conservation on the island due to the development of unsustainable tourist attractions.

The negative impact of tourism on sea turtle conservation explored Chapter 2 is quite evident on Gili Trawangan. Tour operations, especially snorkelling and SCUBA diving trips, were overcrowded. Beachside development was very prevalent. Waste has been a prime concern in the area, and was leading to coral destruction and beach pollution (Graci and Dodds, 2010; Interview # 35, 2010). Beach development was encroaching on sea turtle nesting sites, and increasing night time lighting near the beach. These may have been purposeful choices by residents to better their current financial situation, but also could have been a result of a lack of education regarding best practices for sea turtle tourism.

Stakeholder interdependence is important in stakeholder collaboration in tourism. Stakeholders must appreciate that they depend on each other, and that the solution to the problem at hand requires collective action (Selin and Chavez, 1995). Stakeholder interdependence regarding the survival of the tourism industry was recognized by some respondents. For example, one local expressed that expatriates were needed to run businesses because they had the skills to do so, while business managers needed locals to do simple day-to-day tasks that kept the business running (Interview # 30, 2010). However, stakeholder interdependence to promote conservation was less recognized by stakeholders. A lack of education regarding sea turtles in general could have been resulting in a lack of perceived crisis and the need for stakeholder interdependence and collaboration.

All of these factors demonstrated the possible need to increase stakeholder education regarding sea turtles. Gili Trawangan's tourism industry continues to develop, resulting in a focus on immediate financial gain for individual stakeholders and less of a focus on conserving important resources to ensure a strong future for tourism on the island for all stakeholder groups. An increase in education could allow stakeholders to understand the benefit that stakeholder collaboration to promote conservation through sea turtle tourism may bring to the island.

6.2 Financial Considerations

Stakeholders who recognized that sea turtles were important for their livelihood were less concerned with immediate financial gain from sea turtle tourism, and more focused on attempting to use them in an appropriate way to ensure a strong tourism industry in the future. However, stakeholders lacking the ability to understand the importance of sea turtles appeared to associate sea turtles with immediate financial gain which was reflected in unsustainable sea turtle tourism practices.

The prime attraction for the locally run snorkelling and glass bottom boat tours was sea turtles. Both types of tours were visibly overcrowded. Overcrowding these tours could allow for an increased short term financial gain. A SCUBA dive operator also expressed an increase in dive tour sizes over the years (Interview # 11, 2010). Larger tour sizes were beneficial to these operations, because they could gain more financially without increasing the number of employees to lead the tours. Consequently, sea turtles were being negatively impacted by being overstressed, overfed, and crowded for short term economic gain.

Due to the practices at the turtle hatchery, many stakeholders associated the project with sea turtle tourism rather than conservation. Consequently, the project was frequently perceived simply as a means of gaining money from tourists. As discussed in section 6.1, some accommodations have attempted, or planned to attempt to construct their own sea turtle tourism tanks to attract tourists to their business (Interview # 35, 39, 14, 16, 2010). One luxury accommodation manager stated that the main goal of their turtle tank plan was to attract tourists to their business rather than an attempt at sea turtle conservation (Interview # 14, 2010).

Financial considerations regarding sea turtles could have been linked to a lack of stakeholder knowledge and education on the island. However, occasionally even with adequate knowledge of the consequences of unsustainable tourism, some stakeholders decided to exploit the sea turtles for short-term financial gain.

6.3 Management Structure of the Hatchery

Management structure played a key role in the examination of an opportunity for stakeholder collaboration in Gili Trawangan. Collective goals, common interests and a common vision are all important aspects of stakeholder collaboration (Wood and Gray, 1991; Selin and Chavez, 1995). However, it was frequently revealed that the management of the hatchery was not reflecting stakeholder perceptions. Therefore, the management structure of the hatchery acted as a prime barrier to stakeholder collaboration and consequently sea turtle conservation. This barrier is an example of the importance of stakeholder analysis in environmental management. By obtaining stakeholder perceptions regarding the management of the hatchery, these perceptions could then be used in the planning of the management of the hatchery. Consequently, if stakeholder perceptions are more reflected in the management of the hatchery, their perceptions regarding the hatchery may change, and they could become more supportive of it.

The way that sea turtle tourism was managed was not reflecting stakeholder perceptions and therefore negatively impacted both stakeholder collaboration and sea turtle conservation. Not all stakeholder groups were satisfied with the hatchery project, and many believed that it was geared more toward tourism rather than conservation. Operators expressed the least amount of satisfaction with the hatchery, and were also the most likely stakeholder group (besides tourists) to financially support the project.

The sea turtle hatchery relied on tourist donations, which was not a favoured method by tourists to financially support the project. All stakeholder groups except for tourists identified tourist donations as the method by which the project should be financed. Tourists expressed that they would rather pay to participate in some sort of activity or tour regarding sea turtle conservation. Their second most preferred method of funding the hatchery was through paying a tax. They also said that they would sponsor the project through a program with year round donations. As such, the hatchery was not gaining as much financial support as it could from tourists because it relied on a method of support that was not satisfying the target source, tourists. Consequently, resources (specifically money) were expressed as a barrier to sea turtle conservation on the island. The lack of management structure was the source of many barriers.

Another aspect of management that influenced collaboration and conservation in sea turtle tourism was a lack of project transparency. Stakeholders were not provided with information on how the project was managed and designed. Tourists' and operators' perceptions were not being reflected regarding transparency, yet they were expected to be the prime sources of resources. The lack of project transparency was hindering stakeholder involvement in terms of practical help and financial support.

Tourists' overall perceptions for the hatchery were not being met. Tourists expressed that if the hatchery was clearly directed toward sea turtle conservation rather than focused mostly on tourism, that they would be more supportive of the project (both financially and practically).

The various ways in which the hatchery was being managed on Gili Trawangan was the cause of many of the barriers that were identified in Chapter 5.

6.4 Regulatory Conflicts

Regulatory conflicts seemed to impact the opportunity for stakeholder collaboration to promote conservation in sea turtle tourism. Regulatory conflict was apparent at a local level as well as at the national level.

The national government had a longstanding history of conflict with the locals of Gili Trawangan over land ownership (as discussed in Chapter 3: Research Setting). As such, the locals on the island had very little trust in the national government and expressed no desire to build any sort of partnership with them. A local regulator expressed that the Indonesian government was considered criminal to the local community (Interview #1, 2010). Governments usually play an important role in promoting conservation in sea turtle tourism (Choi and Eckert, 2009).

Regulatory corruption existed at the local level. Decisions made by regulators on the island were based strongly on relationships with stakeholders. One long time resident and owner of an accommodation explained that regulatory corruption was very prevalent on the island. Regulators accepted financial bribes in exchange for development to occur along the beach, and that the individuals with this type of relationship with the regulators were also often exempt from paying taxes (Interview # 20, 2010).

To exacerbate the issue of regulatory conflict and sea turtle conservation, the head of Gili Trawangan was also the owner of the sea turtle hatchery. As such, although many stakeholders on the island may not have agreed with the practices being carried out, they also would not express any criticisms regarding the project as it may have risked their relationship with regulators and consequently jeopardised their livelihood on the island. However, by not

expressing their dissatisfaction with the project, they were also jeopardising their future livelihoods by not conserving one of the prime resources on the island.

6.5 General Disconnect to the Island causing a Decreasing Perceived Value of Sea Turtles

A strong sense of community and personal attachment to the natural resource is a strong motivator in the development of stakeholder collaborations (Selin and Chavez, 1995). An increasing disconnect (or lack of stakeholders being personally attached) to the island may have been decreasing the value that stakeholders placed on resources like sea turtles and this consequently could have impacted tourism management and stakeholder collaboration.

An expatriate who owned several operations encompassed the finding that many stakeholders on the island did not have a deep connection with the island beyond short term economic gain. "We are imagining a longevity here in business, maybe the next five to eight years. And, we're going to be building another 12 villas just along the strip here" (Interview # 16, 2010). In relation to rapid expansion with little consideration for the longevity of the tourism industry, owners of developments were increasingly not living on the island. Owners who originally did live on the island had moved away due to excessive development, and new Indonesian developers were often residents of Bali or Lombok (Interview # 11, 35, 36, 37, 2010). This became evident throughout the interview process. It was difficult to interview owners of many large and luxurious accommodations, or dive shops because they were rarely on the island throughout the year. Some interviewees suggested that many people had moved away from the island over the past few years due to the rapid development and increasing number of tourists on Gili Trawnangan (Interview #11, 35, 36, 37, 2010)

International travelers and non-local Indonesians increasingly recognized Gili Trawangan as an area for employment. Operations were hiring non-local Indonesians (especially from nearby Lombok) for service jobs, as they generally had a greater ability to speak English and communicate with tourists. In addition, skilled international travelers who were qualified dive instructors decreased the need for locals to become trained divers which in the past was funded by the dive shops (Interview # 30, 34, 35, 2010). As such, hiring international travelers was less of a burden both financially and in terms of time for dive shop operators.

Based on interview discussions regarding tourism trends over time, it seemed that tourists were staying for shorter periods of time on the island. Shorter tourist visits could consequently impact the amount of knowledge tourists gained regarding local customs and traditions. With a decreased awareness of local livelihoods, tourist perceptions and actions were potentially less beneficial to the local community. It was occasionally apparent that tourists' behaviours were not supportive of local livelihoods. Tourists were frequently seen picking up sea turtles at the hatchery, littering, and being hostile towards the local population.

With many stakeholder groups becoming disconnected from Gili Trawangan, the intrinsic value of the island and its resources may have been decreasing. Sea turtle tourism practices were more reflective of short term benefits from tourism rather than practices focused on satisfying present as well as future needs.

6.6 Stakeholder Conflict

Stakeholder conflict was a consistent theme that emerged throughout the analysis. Stakeholder conflict can be a difference in opinion or disagreement. In Gili Trawangan, stakeholder conflict went as far as certain individuals

or groups being unable to work together due to large differences in opinions and lack of trust. It was recognized as a barrier to sea turtle conservation, and to stakeholder collaboration on the island. Stakeholder conflict seemed to have roots in the complex history of land ownership and development on the island. The history (as discussed in Chapter 3) has left tensions and a lack of trust between the local population and foreign developers on the island. Stakeholder conflict also seemed related to regulatory corruption or conflict in some cases. The main conflicts on the island that affected conservation included the conflict between the head of the Ecotrust and the turtle hatchery, the general conflict between expatriates and locals, and perhaps the increasing hostility between tourists and locals. Overall, stakeholder conflict was an important barrier to identify in examining an opportunity for stakeholder collaboration.

The conflict between the turtle hatchery, which was the main attempt at promoting sea turtle conservation, and the Ecotrust, which was the main conservation body on the island, was an important barrier in this study. Both the hatchery and the Ecotrust shared a common vision, problem definition and goals. They both understood the impending crisis if sea turtle populations disappeared around the island. The Ecotrust's network seemed to be a great foundation to incorporate sea turtle conservation. However, even with many antecedents to stakeholder collaboration present, as detailed in Selin and Chavez's (1995) model, these groups were in conflict. This is not conducive to stakeholder collaboration.

As discussed in Chapter 5, the Ecotrust collaboration dealt with environmental issues that arose as a result of the tourism industry. Due to the differences in opinion between the ENGOs on the island, the hatchery was excluded from the Ecotrust's work. The grant obtained from a large company to build the turtle hatchery increased the lack of trust between the Ecotrust and the hatchery owner, as plans were not shared with the Ecotrust, and the building was illegally built on the beach (Interview # 39, 2010). These two groups were unable to effectively work together and as a result, the hatchery project was not included in the Ecotrust's collaboration. The ENGOs did however recognize the need to overcome this conflict, as they were interdependent for sea turtle conservation (Interview #39, 35, 2010). One ENGO recognized the need to work with the other ENGOs on the island in order to obtain key resources (money and information) for their project (Interview # 39, 2010). Meanwhile, another ENGO stated that changes needed to take place at the hatchery to ultimately improve sea turtle conservation on the island. In order for this to occur, the relationship needs to be improved between both ENGOs (Interview #35, 2010).

Beyond the Ecotrust and the hatchery, it was evident that locals and tourists were occasionally hostile towards each other. A few of locals expressed that they felt increasingly disrespected by tourists (Interview 29, 30, 33, 34, 2010). This conflict was not overly obvious on the island. Hostility between these two groups was observed on occasion, and was identified by a few locals (Interview # 29, 30, 33, 34, 2010). However, most tourists and locals expressed the excitement of potentially having the ability to work together for conservation (Interview # 20, 25, 27, 28, 29, 34, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 2010).

Stakeholder conflict could have affected the selection of a leader of the multi-stakeholder collaboration. There was a large divide between expatriate responses and local responses regarding leadership. A good leader for a multi-stakeholder collaboration was an expatriate according to the expatriate respondents, while locals largely identified the local owner of the hatchery as a good leader. This may be linked to either corruption (locals not

wanting to risk their livelihood by not identifying the owner of the hatchery) or due to a lack of trust in expatriates given the complex history of the island.

Stakeholder conflict emerged in many areas throughout the study as a barrier to both sea turtle conservation and stakeholder collaboration on the island. This finding is vital for this study, because it demonstrates that beyond the outlined factors in the antecedents and problem-setting phases of Selin and Chavez's (1995) tourism partnership model, there is also a need for stakeholders to be at peace with each other and create a good relationship.

6.7 Summary

The main findings of this study were that there were many interrelated factors that may influence an opportunity for stakeholder collaboration in the conservation tourism industry. They also linked back to Selin and Chavez's (1995) model very closely. The findings supported the importance of stakeholder analysis. The prime influences were: the level of education/awareness regarding sea turtles, economic considerations, management structure, regulatory conflict, a general disconnect to the island, and stakeholder conflict. Overall, this study revealed that there is an opportunity for stakeholder collaboration regarding sea turtle conservation and tourism in Gili Trawangan Indonesia.

6.8 Conclusion

Collaboration theory in both planning and tourism suggested that if certain characteristics were present, that an opportunity for the development of collaboration was strong (Forester, 1994; Selin and Chavez, 1995; Gray, 1985). There were some opportunities that existed in Gili Trawangan including: existing networks, a consensus on legitimate stakeholders, a common understanding that tourism played a significant role in the economy, and stakeholder recognition that sea turtles were a valuable resource for tourism. However, it was also found that the conditions for collaboration were limited in this destination by: leadership, stakeholder conflict, a lack of perceived crisis and urgency, a focus on present return, a lack in recognizing the need for stakeholder interdependence in sea turtle conservation, and a lack of ability to see the benefits of collaboration. Incentives did not play a large role on the island, and there did not appear to be an individual who was willing to take charge and act as a broker for the collaboration. Lastly, due to the lack of government on the island, and the regulatory corruption and conflict that existed, a government mandate for conservation was not realistic or of prime importance to the community. These findings demonstrate that there is an opportunity for collaboration specifically related to sea turtle conservation and tourism in Gili Trawangan.

The positive elements for the collaborative opportunity that were revealed were primarily regarding general awareness; whereas, the limiting factors were more structural, economic or related to regulations. This demonstrates that in order for Gili Trawangan to proceed through the collaborative model, stakeholder perceptions regarding these negative aspects should be targeted. Therefore, the recommendations focus on building a consensus among stakeholders especially regarding the elements that were found to lack consensus and therefore may be hindering the collaborative process.

By using stakeholder analysis and Selin and Chavez's (1995) tourism partnership model, it appeared that the island of Gili Trawangan does have the potential to develop a multi-stakeholder collaboration focused on sea turtle conservation and tourism. Although not all factors identified in collaborative planning theory or Selin and Chavez's

(1995) model were present in this study, some were. Even though not all stakeholder groups recognized the importance of sea turtles on the island, most did. In addition, if the barriers could be broken down, there may be a possibility to build consensus and increase the opportunity to develop a strong multi-stakeholder collaboration.

There were important networks on the island that were identified which relied on collaboration, like the Gili Ecotrust. The Ecotrust's interests linked the impact of tourism to conservation through a collaborative effort. Therefore, it was very important for this study. It demonstrates that multi-stakeholder collaboration is possible on the island, as it was in existence. The Ecotrust did not incorporate sea turtle conservation on the island. This study's goal was to examine an opportunity for collaboration for sea turtle conservation through tourism. As such, the Ecotrust provided a base for the recommendations to incorporate sea turtle conservation and potentially expand the Ecotrust partnership to include more stakeholder groups. Developing an entirely new organization or collaborative effort (specifically dealing with sea turtle conservation and tourism) with such similar values to the Ecotrust may be redundant and cause more stakeholder conflict.

The conflict between the ENGOs conflict was considered in the development of the recommendations which recognized the Ecotrust as an avenue to stakeholder collaboration for sea turtle conservation. Both ENGOs expressed the desire to mend their conflicts as they recognized their interdependence in sea turtle conservation on the island.

The recommendations, which are discussed in the following chapter, will therefore focus on overcoming barriers to help stakeholders gain an understanding of sea turtles and their importance to the island, and their status as a globally endangered species. The recommendations aim to expose perceptions to help develop a consensus and move Gili Trawangan towards Selin and Chavez's (1995) antecedents and problem setting stages and increase the opportunity for the collaborative process regarding sea turtle conservation on the island. This process is reflective of ideas presented in the literature review regarding communicative action and consensus building (Healey, 1992; Forester, 1994; Healey, 2003; Booher and Innes, 2002; Innes and Booher, 1999). The recommendations also consider sustainable livelihoods theory.

Chapter 7: Recommendations

This chapter outlines recommendations as well as roles and responsibilities for each stakeholder group. First, the general recommendations are described, and the second section presents roles by stakeholder group.

7.1 Introduction to Recommendations

The following recommendations identify techniques in which collaboration may be developed to promote conservation. The goal of the recommendations is to overcome barriers or challenges that were revealed in order to encourage stakeholder collaboration to ultimately promote conservation in sea turtle tourism.

Stakeholder collaboration is central not only in best practices for sea turtle tourism, but for sustainable tourism development as a whole, as discussed in Chapter 2. Collaboration helps stakeholders share their knowledge and resources with each other to improve the project at hand (Gray, 1989; Selin & Chavez, 1995). To recall, the main elements that helped develop collaboration for tourism often included a crisis, common vision, existing networks, strong leadership, incentives and the recognition of interdependencies (Selin & Chavez, 1996; Forester, 1994; Gray, 1985). The recommendations attempt to build consensus through revealing stakeholder perspectives. In addition, the recommendations for the management of sea turtle tourism and conservation strive to include stakeholder perceptions regarding management and may help increase the acceptance of the hatchery on the island. The recommendations serve to overcome many of the identified barriers which may help to change perspectives of stakeholders so that they may be more conducive to the development of a multi-stakeholder collaboration.

As introduced in the previous chapters, there did not appear to be a perceived crisis regarding sea turtles in Gili Trawangan. The declining global population of the species was not evident in this area, and stakeholders did not perceive a crisis requiring urgent and immediate action. The recommendations therefore also aim to develop a consensus regarding a perceived crisis. A community facilitator is important in this type of situation, where knowledge and values among stakeholders is different (Innes and Booher, 1999). Global sea turtle populations are at risk (Allen, 2007; Tisdell and Wilson, 2002; Bermuda Turtle Project, 2004; Benson et al., 2007). Therefore, although stakeholders did not yet perceive a crisis in this area, perhaps by increasing education, Gili Trawangan can be a good example of proactive conservation rather than reactive. As discussed in Chapter 2, a community facilitator may play a key role in increasing education and knowledge on the island which may help change stakeholder perceptions to a consensus regarding a perceived crisis before the crisis becomes evident around Gili Trawangan. Facilitation will be discussed in the recommendations.

The following four recommendations strive to be realistic and simple to avoid increasing or introducing other barriers (such as bureaucracy). They also consider the challenges to sustainable tourism development in islands as discussed in Chapter 2. This study aims to not only state collaboration as a recommendation to help increase sea turtle conservation, but to provide recommendations on how a multi-stakeholder collaboration (for sea turtle conservation) reflecting Selin and Chavez's (1995) model may be developed based on actual information obtained from stakeholders in Gili Trawangan

The recommendations build on the Ecotrust network to avoid increasing any further stakeholder conflict or repetition in projects. The Ecotrust shared similar values to the goal of this study: conservation and tourism. In addition, the stakeholders who perceived sea turtles and tourism as very important to the island (dive shops) were

already involved in this collaboration. Therefore, building on this established network will simplify the process and avoid introducing new processes or organizations that may be too similar to the Ecotrust.

If the recommendations are implemented in Gili Trawangan, it is believed that stakeholder perceptions could become more unified and reflective of the antecedents and problem-setting phase of Selin and Chavez's (1995) model. As such, the recommendations could help to initiate the development of a multi-stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan.

7.1.1 Recommendation One: Increase Available Information and Education of all Stakeholder Groups

An increase in education of all stakeholders could help develop a common vision and goals as well as help overcome many of the expressed barriers in the study. As discussed in the literature review, stakeholders who shared a common vision and goals were key elements in stakeholder collaboration in the tourism industry (Selin & Chavez, 1995). Education of all stakeholder groups regarding the importance of sea turtles to the livelihood of the local community may allow stakeholders to develop common goals for conservation.

An increase in education regarding appropriate techniques to promote conservation through sea turtle tourism seemed important for all stakeholder groups. This could further unify stakeholders' understanding and vision and help build a consensus regarding sea turtle tourism.

Educating stakeholders on the state of global sea turtle populations and the importance of sea turtles to livelihoods in Gili Trawangan may increase the perceived potential for crisis. As Selin and Chavez (1995) explained, a crisis was often a catalyst to partnership development. Stakeholders on the island had a mutual understanding that tourism played a large role in their economy and this is beneficial for stakeholder collaboration in the tourism industry (Selin & Chavez, 1995). However, many stakeholders did not recognize that sea turtles also played a crucial role in their economy. If groups perceived the declining global sea turtle populations as a crisis, it could be a catalyst to or opportunity for a multi-stakeholder collaboration. This study aims to contribute to conservation prior to the crisis of declining sea turtle populations actually occurs in Gili Trawangan. Therefore, education and knowledge are imperative to the development of this particular partnership.

Guidance from an expert or knowledgeable individual or group is suggested for this recommendation to increase the potential success of this recommendation. As discussed in Chapter 2, communicative action often required some form of a facilitator to help guide individuals or groups with different knowledge, values, and interests, and to help keep them focused on methods to help them work together and develop a consensus for a project or plan (Forester, 1994; Booher and Innes, 2002). Collaboration relies on the sharing of resources such as information and knowledge. The sharing of information regarding best practices for sea turtle tourism is important in this setting and could be in the form of mentoring, literature, or visual presentation. Guidance may also be important among stakeholders so that information can be easily shared and available to the entire island.

An increase in education regarding the importance of sea turtles to the community could also have an impact on other barriers like development and business mentality. If tourists were more educated regarding the appropriate treatment of sea turtles and their importance to the local community, their behaviours and support of the hatchery program might improve. As discussed in Chapter 5, some expatriates expressed that they wanted to increase their knowledge of local uses of sea turtles. This could be included in the educational outreach. Beachside development

and the inappropriate use of sea turtles for short term economic gain through poorly managed tourist operations could also be positively affected through increased education on the island.

7.1.2 Recommendation Two: Create a Management Structure that Attempts to Promote Conservation through Sea Turtle Tourism

There was not a concrete management structure for the hatchery project, which consequently created many of the barriers that were discussed in Chapters 5 and 6.

Stakeholders articulated that the hatchery project lacked in transparency. Therefore the lack of transparency was preventing financial support from other stakeholder groups. Operators, ENGOs and tourists explained that there was no way to see how, where, or when any of the financial contributions were used. The hatchery should increase its transparency; information regarding management, required costs, expenses, and sources of funding should be available to all stakeholders.

The Gili Ecotrust has a transparent management structure. This network could increase its collaborative effort to include the turtle hatchery in its management. Roles for each stakeholder group are discussed in the following section.

Funding options and opportunities for the hatchery could to be more reflective of stakeholder perceptions. Tourists were identified as the prime source of funding by all stakeholder groups (Table 5.23). Tourists stated that they would rather pay a tax than donate on the spot to the hatchery. Therefore, if the hatchery expects tourists to be the main source of financial support, the project could be reflective of their perspectives, and a management structure could be created. A few respondents stated that an entry fee at the hatchery was not acceptable to them; therefore, a small tax would satisfy both tourists as the source of funds as well as those involved with the hatchery. A small one-time tax on accommodations is a simple method to obtain financial support from visitors, as most tourists appeared to stay at least one night on the island. This tax could be combined with the Ecotax, which could be less confusing than introducing an entirely new tax to the island. The increased tax amount could be allocated to the turtle hatchery in collaboration with the Ecotrust (which is further discussed in this chapter).

Recognition at the hatchery could be increased, as it was identified as an incentive by respondents. As such, participating (financial, practical or informational) stakeholders should be recognized appropriately by the hatchery. A simple method that requires few resources may include constructing a recognition board for all participating stakeholders. In addition, the Ecotrust had reusable bags available for purchase on the island. Therefore, the turtle hatchery could use some of the funding obtained through the increased tax to create a similar product to sell for further funding. This product could also be used to recognize any tourists who volunteer their time with the turtle project. An incentive may therefore draw more tourists to help participate in the daily activities of the hatchery (e.g., feeding and cleaning sea turtles and their tanks).

The management structure should be transparent and reflective of stakeholder perceptions. As well, it could outline opportunities and methods that people can financially contribute to the project. An increased recognition of participants would also be beneficial. These changes in management may allow for resources (both financial and practical) to increase, and support to be organized and recognized. These improvements could help overcome

barriers. In addition, by building off of the Ecotrust, these recommendations do not require a new organization; they simply require the expansion of an existing management plan and organization.

7.1.3 Recommendation Three: Move towards Internationally Successful Best Practices for Sea Turtle Tourism: Focus More on Conservation to Attract Tourism

This study revealed that, if the hatchery on Gili Trawangan was more clearly dedicated to sea turtle conservation rather than tourism, stakeholders would be more satisfied. As a result, shifting the hatchery project towards internationally successful sea turtle conservation practices and away from a focus on tourism would actually in turn attract more tourists and their resources to this destination. Tourists wanted to support and participate in a sea turtle conservation effort rather than a support a tourism project that was potentially detrimental to sea turtle populations.

Based on the small and unpredictable female nesting population on the island, and the hatchery which is already set up, the best practice for Gili Trawangan may be most similar to Bermuda's method of promoting conservation through sea turtle tourism; however, not identical. This study shows the importance of obtaining stakeholder perceptions prior to implementing best practices. Although a best practice may be successful in one area of the world, it may not see the same level of success elsewhere. Tourists to Gili Trawangan could be involved in releasing hatchlings at night, and any weaker hatchlings that do not enter the sea could be placed in the established headstarting tanks for educating tourists, locals, and other visitors. Stakeholders can be given the opportunity to participate in cleaning and feeding the weak hatchlings that were held back, while being provided with information for education and recognition as an incentive to participate.

Tanks should be covered with a simple invisible mesh to deter visitors from touching the sea turtles. This could be purchased with the finances obtained through the tax as mentioned above. Increasing the natural elements of sea turtle life to tourists (releasing hatchlings and only holding the weak few back), will allow for the project to be easily maintained with fewer resources (less turtles require less food and maintenance), and may increase tourist interest and support. Fewer turtles in the tanks will be more visually appealing, and geared more toward conservation, as the small number of turtles in the tanks will be present only because they proved to be weak in their release. This information should be clearly displayed for visitors to the hatchery. Overall, even though this recommendation is seemingly less focused on attracting tourism, based on the results of stakeholder perceptions, it should in fact attract more tourists. Tourists wanted to see a properly managed conservation effort. This conservation effort will actually draw them in.

In addition to the hatchery, the local community is economically linked to sea turtles through snorkelling adventure tours and glass bottom boats. These practices need to be improved and be more reflective of best practices to ensure that they remain viable into the future to protect these local livelihoods. Tour guides should work together rather than independently to avoid constantly overcrowding and overfeeding sea turtles. By traveling together in groups to various sites, the stress placed on sea turtles could be lowered. The Ecotrust and the increased tax could help purchase lettuce for the locals to feed the sea turtles rather than fish which is much more beneficial to sea turtle health.

7.1.4 Recommendation Four: Conduct a Follow-up Study

A follow up study should be conducted which includes all stakeholder groups once again. This study should take place in the near future to examine if the recommendations of this study were implemented, and if a multi-stakeholder collaboration to promote conservation in sea turtle tourism was successfully developed and if it is progressing along Selin and Chavez's (1995) model. This type of follow up study would contribute to longitudinal information that could provide additional support or feedback regarding Selin and Chavez's (1995) model in terms of the collaborative process specifically related to sea turtle tourism in Gili Trawangan.

A follow up study is important in this area due to the fast turnover of stakeholders on the island and the rapidly developing tourism industry. These factors cause many changes to occur fairly rapidly, and a follow up study to ensure that stakeholder perceptions are always considered should be executed.

7.1.5 Summary

These four recommendations aim to help overcome barriers expressed by stakeholders in the study, while taking into consideration incentives and ideas identified by stakeholders as identified in Chapter 5. In addition, the recommendations build on previous networks and existing practices on the island, and therefore strive to limit any new barriers or processes on the island.

7.2 Roles and Responsibilities

This section will discuss the roles of each stakeholder group to help the opportunity for multi-stakeholder collaboration for sea turtle conservation to be strong. In order for multi-stakeholder collaboration to be developed and successful, the roles and responsibilities for each stakeholder group should be outlined and defined. Every stakeholder has the ability to share knowledge, expertise, and resources. Roles and responsibilities need to be identified and agreed on by all stakeholder groups. This will help clarify objectives throughout the creation of the multi-stakeholder collaboration to help ensure that it is strong and successful.

7.2.1 Environmental Non Governmental Organizations

The ENGOs are the main leaders in terms of the promotion of conservation in sea turtle tourism on Gili Trawangan. Respondents either identified the current head of the Ecotrust or the owner of the hatchery on the island as the leaders for sea turtle conservation and tourism. As such, both ENGOs could be most suited to help coordinate the project and satisfy stakeholder perceptions. Because the head of the Ecotrust was identified as a leader, this further supports simply expanding the Ecotrust to incorporate sea turtle conservation, rather than developing an entirely new organization for this project. The ENGOs would need to hold an initial meeting with as many stakeholders as possible (including the Ecotrust members). They could discuss the project and the few changes that could take place, and why these changes could be beneficial and simple.

An educational brochure for tourists could to be developed. The brochure could outline the importance of sea turtles to Gili Trawangan, the conservation project with the Ecotrust and the hatchery, and opportunities on how tourists could become involved during their stay on the island. Encouraging tourist participation and describing the collaborative effort of the entire community could be a key part of this brochure. This brochure could be developed by combining knowledge of the Ecotrust and the hatchery project. The Ecotrust has the computer software necessary for the development of the brochure. Finances to help with printing could be obtained through either money received

from the turtle tax, or local business support. The ENGOs could then distribute the brochures to accommodations around the island to have them readily available for tourists.

A coordinator could manage the finances of the hatchery to ensure that it is being managed as discussed in the previous section, reflecting stakeholder perceptions. The coordinator could be responsible for collecting the tax from accommodations and ensuring that the management of the funds is transparent and available for stakeholders to view. In addition, the increased tax could serve as the salaries for the workers at the turtle hatchery which previously depended on the small tourist donations. The tax could also help provide lettuce for sea turtle food to the snorkelling and glass bottom boat tours to encourage healthy feedings without having locals pay. Tax collection would not be a new process; many dive shops and some accommodations already collected the Ecotax which was then collected by the head of the Ecotrust. As such, this process would simply be built on to include more accommodations. The coordinator could ensure that information regarding sea turtles in Gili Trawangan is readily available for visitors at the headstarting tanks as well as at local operations and the school. The Ecotrust had a finance manager who could slightly expand their responsibilities to keep track of the increased tax as well. As such, the coordinator role, and financial manager positions are not new, but once again build on positions that existed on the island.

As mentioned above, the Ecotrust had reusable bags available for purchase. As such, they could expand their program, and the bags could be sold at the hatchery and also given to volunteers who help at the hatchery. For example, tourists who volunteer to help clean the hatchlings could be provided with a bag in recognition of their support.

Frequent beach waste cleanups took place through the Ecotrust at the time of the study. Tourists who collected one garbage bag full of waste were rewarded with a free dive as an incentive. This program needs to be better advertised to help encourage and involve multiple stakeholder groups' participation, especially tourists, as it was observed that few participated likely due to little advertising. The lack of tourist involvement was also mentioned by a few dive shops (Interview # 5, 7, 11, 2010). Advertising does not necessarily require more resources, but could simply be by word of mouth. ENGOs could direct accommodations and dive operations to encourage their customers to participate. The hatchery could advertise the beach cleanups as part of the collaborative effort with the Ecotrust. Many tourists pass by the hatchery's location, and it would be a prime location to advertise the cleanups. This may require the Ecotrust to develop one more poster board that can be placed near the hatchery when beach cleanups will take place. This could be funded by using the increased tax money. In addition to waste cleanup, a night time beach clearing of objects and dimmed lighting could be encouraged by the Ecotrust's members.

7.2.2 Operators

Operators have various crucial roles in this project. Operators depended on tourists for their business and therefore appeared to have an opportunity to share critical information with this stakeholder group. All facilities could to be responsible and provide other stakeholders (especially tourists) with information regarding sea turtle conservation.

By ensuring that tourists are provided with accurate information regarding sea turtle conservation initiatives on the island, the link between the sea turtles and the livelihood of the local community could become more reflected in tourists' behaviours. Educating tourists regarding local livelihoods could increase their understanding of the need

for conservation on the island. Information could be provided in a simple brochure/pamphlet located in each room which may also advertise the hatchery project and how tourists may become involved during their stay.

Accommodations and dive shops could encourage their customers to participate in the beach cleanups on the island and inform them of the incentive: a free dive for a bag of garbage collected. This could increase the success of the beach cleanups, and include tourists in environmental initiatives.

Operators could become involved with collecting the tax and ensuring that it is collected by the ENGO coordinator. In addition, operators could play an important role in financially supporting the initial printing of the educational brochures or posters. In exchange for their financial support, their operation could be recognized/advertised at the hatchery as a supporting member.

Operators near the beach could be responsible for ensuring that the beach is cleared of objects (beach chairs, umbrellas, boats and tables) and that no bright lights are used at night near the beach. This may help the beaches to become suitable for nesting sea turtles.

Lastly, operators should be aware that locals need to be more involved in the tourism industry on their island. This may require operators to invest more in local education to allow locals to become skilled employees.

7.2.3 Educators

The main role of an educator is to share knowledge with others. As such, educators play a key role to help increase the awareness and education of children regarding sea turtle conservation. Educators will first need some guidance from experts as they admittedly knew little about sea turtles or sea turtle conservation (Interview # 40, 41, 2010). They could then act as a link to share important knowledge and information with the local children of Gili Trawangan.

Educators could teach children about the importance of sea turtles to local livelihoods, and also about best practices to help protect sea turtles on the island. For example, educators should teach children about the impact of waste and pollution on sea turtles, night time lighting, and beach obstacles. Educators could teach children about sea turtles, and as an activity, the children could create posters for display at the hatchery. These posters could help educate tourists and other local children about the hatchery, and develop a stronger link for tourists to see between sea turtles and the local population.

Educators could play a key role in increasing local interest in the hatchery, and in the development and maintenance of best practices (like clearing the beaches and dimming beachside lighting) on the island. The local school could also play a large role in beach cleanups on the island. Getting children involved practically will allow them to understand the link between waste and sea turtle conservation on the island.

7.2.4 Potential Stakeholder: A Nearby University

Although at the time of the study a nearby university was not a stakeholder, it was identified by multiple respondents as a potential stakeholder to help increase education regarding sea turtle conservation through tourism. Guidance and facilitation are important in consensus building for collaboration (Healey, 1992; Forester, 1994; Healey, 2003; Booher and Innes, 2002; Innes and Booher, 1999).

A nearby expert in sea turtle tourism and conservation could play a key role in relaying important information and educating stakeholders on the island. This role would be new but temporary in Gili Trawangan. This

guidance role would be similar to a community facilitator who aims to increase knowledge among stakeholders (with different values, interests and knowledge) to ultimately strive towards building a consensus for the project.

A faculty member at a nearby University supervises students studying sea turtle biology and conservation. He are also involved with a nearby sea turtle conservation centre. This person has the capacity and willingness to become involved with sea turtle conservation and tourism in Gili Trawangan. He and/or his students could act as a guide and share their knowledge with the other stakeholders on the island so that they can successfully develop and apply their own knowledge to the management of sea turtles.

Although the WWF was mentioned in the analysis as a possible group to get involved with sea turtle tourism on the island, they did not appear to be realistic for this project in Indonesia. A regulator stated that they had attempted to get the WWF involved to help with the development of the hatchery in the past, but with little success. The nearby University is located closer to Gili Trawangan than the WWF. In addition, this expert has previously supported the hatchery project, and has expressed an interest in becoming further involved. Contact was made with WWF Indonesia regarding sea turtle conservation in Gili Trawangan, and they recommended this expert from the University as a local expert in sea turtle conservation in Bali and Lombok. Due to past difficulties in pursuing the WWF's support, and the WWF's recommendation that this expert was most suitable, this organization did not appear to be a realistic group for guidance in this project.

Students and/or the expert from the University could come to the hatchery and educate the owner and managers, and the Ecotrust of the best practice for sea turtle tourism in this location. The changes that are coul improve the hatchery project are minimal and may not take a great deal of time to teach. The expert speaks Indonesian and also has had contact with the owner of the hatchery in the past. The expert is respected by the regulators and ENGOs as a knowledgeable and trustworthy individual for sea turtle conservation in Indonesia (Interview #1, 35, 2010).

With the help from a nearby expert, the management of the hatchery could be modified to reflect stakeholder perceptions as mentioned previously. Students from the University could help educate the educators on Gili Trawangan, and perhaps on the same day that the expert educates locals, regulators and ENGOs, his students could teach the students at the local school for the day.

In addition to focusing on the hatchery, the locals in charge of the glass bottom boat and snorkelling adventures need to be educated about improving their practices to ensure they remain sustainable as discussed above (less crowding and proper diets).

This guidance from University students and the expert could help to relay crucial information to locals, educators and the turtle hatchery. The role of the nearby expert would be to share valuable knowledge, primarily in Indonesian, to the Indonesian stakeholder groups on the island.

Although guidance would be a new process in Gili Trawangan, the ENGOs on Gili Trawangan have previously communicated with the expert, and the guidance could take place in a matter of days. The guidance is not a permanent role, but a temporary role aimed at providing the stakeholders with the critical knowledge to effectively manage sea turtle conservation on their own in a sustainable manner.

7.2.5 Tourists

The tourists' role in this project could become evident once the recommendations are put in place. As a result of the changes, tourists could be more willing to provide crucial financial and labour support which could increase participation and vital resources to help continuously improve the project. The leaders (as identified above) could provide tourists with an example to follow, and information to increase their knowledge regarding the importance of sea turtles.

7.2.6 Locals

The local community has an economic link to the sea turtles. As previously discussed, all snorkelling and glass bottom boat tours are locally managed. If locals are educated regarding overcrowding and healthy feeding techniques, and provided with appropriate food from the Ecotrust, this could help to increase the sustainability of their tours and help protect their livelihood.

In addition, the local community could help educate visitors to the island about the importance of sea turtles in relation to their livelihood. This could take place during hatchling releases or at the hatchery itself. The local community should ensure that they remain involved with the hatchery project and if a nest or nesting sea turtle is seen, that eggs are collected and brought to the hatchery.

Local children could become more involved in the Ecotrust's beach cleanups through the school to help identify the link between waste management and sea turtle conservation. They could also be part of creating educational displays (e.g., drawings of why sea turtles are important on the island) that tourists can view to develop an understanding of the link between sea turtles and the local livelihoods.

7.2.7 Regulators

The local regulators could support the ENGO initiatives. Beachside development should not be allowed to avoid any further destruction of vital nesting areas. No beachside development is already a local regulation, but is often overlooked. This study does not aim to change Indonesian policy, but recommends, that for the benefit of local livelihoods, policies be enforced. Local regulations could also be supportive of best practices: beaches could be cleared at night (e.g., chairs, tables etc) and lights could remain low and away from beaches to consider sea turtle nesting.

7.2.8 Conclusion

Clearly identifying roles and responsibilities for each stakeholder group was imperative for this effort to be as simple as possible. Defined roles could allow all stakeholders the opportunity to develop new perspectives regarding sea turtles and conservation. Initially, for the recommendations to be implemented successfully, the process may be time consuming; however, once stakeholders understand the process, and information is created and made readily available, the process could be efficient and primarily involve the ENGOS working with tourists with support from locals, regulators and operators.

These recommendations were developed to be as simple and realistic as possible. The large majority of recommendations and roles were not new, but simply built on existing networks and roles. The conflict between the ENGOs was dealt with, because their roles do not depend on specific individuals working directly with eachother; however, the ENGO roles work together to achieve common goals. The hatchery could help expand the beach

cleanups, while the Ecotrust could help to manage and provide finances for key resources for the hatchery which may improve the conservation of sea turtles.

This chapter developed recommendations from the key findings presented in the previous chapter to help develop more of a consensus reflective of Selin and Chavez's (1995) model which may in turn lead to the initiation and development of a multi-stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan. The recommendations included incentives and ideas expressed throughout the study to increase stakeholder participation, and support.

Chapter 8: Conclusion

The tourism industry has been recognized as one of the largest industries in the world, contributing the most to the global Gross Domestic Product, job creation and transportation (Scheyvens and Momsen, 2008a; Davenport and Davenport, 2006; Theobald, 2005; McElroy, 2003; Hitchcock et al., 2008; Graci, 2008b).

The Indonesian tourism industry has developed fairly rapidly and continues to be recognized for its pristine marine environment as a prime attraction. As a result of the continuously rapid growth, there is an increased need for protecting the resources that are vital to the survival of the tourism industry. If not, tourism industries risk destroying the key resources, as well as local livelihoods.

Gili Trawangan is a young but rapidly developing tourism destination that relies on its unique and pristine marine environment (including the globally endangered sea turtles) yet there were no effective efforts aimed at protecting these species or the local community's livelihood. The hatchery project was largely tourism based. As such, it was an exciting case study to understand stakeholder perceptions and explore stakeholder collaboration for the promotion of conservation through sea turtle tourism.

8.1 Contribution to Knowledge

This study contributes to knowledge in various ways. Although there was plenty of research on sustainable tourism development in small islands, there was a lack of research pertaining to the reality of applying stakeholder collaboration to improve conservation tourism in these areas. Many studies examined stakeholder perceptions in sustainable tourism or conservation (Grimble et al., 1995; Hardy and Beeton, 2001). Some discussed the benefits of obtaining stakeholder perceptions for developing sustainable wildlife tourism (Higginbottom and Scott, 2004; Higgenbottom and Scott, 2008; Burns and Howard, 2003), or described stakeholder collaboration as a recommendation to overcome various barriers to environmental sustainability (Graci 2008a; Graci and Dodds, 2010; Higginbottom and Scott, 2004; Jamal and Getz, 1995; Higgenbottom and Scott, 2008). Research has also focused on the collaborative process in sustainable tourism (Selin 1999; Selin and Chavez, 1995). However, there was a lack of research aimed at linking these studies and examining the practical reality of an opportunity for collaboration as a solution to promoting conservation through wildlife tourism in a small island that depended on wildlife tourism.

This study determined various influences including: education, economics, management, corruption and conflict that either hindered or contributed to stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan, Indonesia. These conclusions apply and build on findings that were revealed in the above studies.

The second contribution of this study is through examining the collaborative process in the tourism industry. This study tests one part of Selin and Chavez's (1995) model of a tourism partnership by examining the factors identified as relevant in the formation of a tourism partnership. This model worked closely with stakeholder approach. Consequently, this study demonstrated, and further supports Hardy and Beeton's (2001) research on the importance of conducting a holistic study using stakeholder analysis to work toward sustainable tourism.

Specifically related to the goal of promoting conservation in sea turtle tourism, this study demonstrated that although best management practices have been developed, in order for them to be successful, stakeholder perceptions need to be obtained and the practice customised to every area so that they are managed in a way that is reflective of

stakeholder perceptions. A best practice for sea turtle tourism that is successful in one area of the world may not see the same level of success when implemented in another area due to differences in stakeholder perceptions. As such, this study demonstrated that stakeholder perceptions are imperative to obtain in any location prior to implementing best practices from another location.

This study provided insight on how to increase sustainability in the tourism industry in small developing islands, especially in a country like Indonesia that emphasizes tourism development. This study demonstrated that stakeholder perceptions were imperative in understanding the collaborative process in the tourism industry. It also helped identify barriers and influences that motivated or impeded sustainability in this industry. With the tourism industry continuing to grow, research needs to focus not only on descriptive studies, but also on examining practical solutions, like multi-stakeholder collaboration, to increase sustainability in these areas.

Stakeholder groups for this study were first identified based on the literature and then modified to reflect the island itself. Although six stakeholder groups were identified as tourists, locals, operators, regulators, educators and ENGOs, the analysis of this study may suggest that perhaps the operator stakeholder group could be considered as two groups instead of one. There seemed to be some divides in responses throughout the analysis in terms of expatriate operations and local operations. It appeared that these two groups within the operator group were fairly split in this study. Although they were all operators, the results demonstrated that expatriates and locals within the group may need to be managed somewhat independently based on their perceptions. This may contribute to literature on stakeholder identification for the tourism industry especially in small islands.

In addition, children in Gili Trawangan appeared to have an opportunity to become involved with sea turtle conservation and tourism in a different way than other locals on the island. As such, children also may be an interesting group to be further studied in terms of stakeholder groups in tourism.

8.2 Achievement of Thesis Objectives
Three specific objectives were satisfied as a result of this study and are discussed below.

8.2.1 Objective 1
The first objective of this study was to examine the literature and identify the stakeholders and any gaps in research on sea turtle tourism and conservation. An extensive review of the literature was conducted to fulfill this objective. The literature included broad topics such as sustainability and the global tourism industry as well as specific factors relating to stakeholder collaboration in the tourism industry. Stakeholder analysis, collaboration theory and sustainable livelihoods approach were all drawn from to help provide a theoretical base and to understand important aspects of environmental management in the tourism industry. Many articles implementing the above mentioned approaches and theories in relation to environmental and tourism management stressed the advantages and importance of conducting a holistic study focused on obtaining stakeholder perceptions. In addition, best practices that were examined all relied on some form of stakeholder collaboration. The literature review explored imperative theories and models that acted as a base in formulating the interview guide.

The literature review did reveal key gaps in research. Holistic studies that obtain all stakeholder perceptions in environmental and tourism management, specifically related to promoting conservation through sea turtle tourism did not exist. The literature review also discovered that although there was research on ideal best management

practices regarding sea turtle tourism, there was a lack of research that attempted to apply these models in a practical sense to promote conservation in sea turtle tourism.

8.2.2 Objective 2

The second objective of this study was to identify key issues, obstacles, and opportunities for stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan. This objective involved applying the findings from the literature review to the development of the interview guide, thereby obtaining valuable data to analyse. The analysis of stakeholder perceptions obtained through the interviews revealed the key issues, obstacles and opportunities perceived for collaboration. The key issues, obstacles, and opportunities were presented in Chapter 5 and 6. The key findings of the study determined that a lack of education and awareness regarding sea turtles, financial considerations, management structure, regulatory conflict, a general disconnect to the island and stakeholder conflict were all main influences in stakeholder collaboration. These findings were presented and discussed in Chapter 6.

8.2.3 Objective 3

The third objective was to develop recommendations regarding stakeholder collaboration to promote conservation through sea turtle tourism in Gili Trawangan. The recommendations were developed from the results of the study which identified key barriers and opportunities for stakeholder collaboration. The recommendations outlined four key initiatives like increasing available information and education for all stakeholders; creating a management structure for the hatchery; and moving towards internationally recognized best practices that focus on conservation to draw tourism. The recommendations also included key roles and responsibilities for each stakeholder group to help develop more consensuses among stakeholders to help promote conservation through sea turtle tourism in Gili Trawangan.

8.3 Further Research

This study built on existing literature on stakeholder analysis, collaboration theory and sustainable livelihoods approach and contributes to the areas of sustainable tourism development, and wildlife conservation tourism. This study focused on answering the question "How can the increasing tourism industry help conserve endangered sea turtle populations?"

This study could be conducted in a few years in Gili Trawangan to further examine Selin and Chavez's (1995) tourism partnership model and contribute to longitudinal information of the area. This type of study could contribute further to research on the evolution of multi-stakeholder collaborations in the tourism industry.

It would be worthwhile to explore and understand if barriers and motivations in other areas around the world are similar to those found in Gili Trawangan. This type of study could be carried out in various locations around the world and be applied to other species to compare the key findings, increase interest, and encourage change in other industries beyond Gili Trawangan's sea turtle tourism industry.

8.4 Summary

As discussed as a main base for this thesis, the tourism industry has the potential to destroy sea turtle populations and the livelihoods of those who rely on sea turtles. However, if managed properly the tourism industry

has an opportunity to promote sea turtle conservation and contribute to the protection of these globally endangered species. This, in turn will help maintain a strong future for those who rely on sea turtles.

Stakeholder analysis, collaboration theory and sustainable livelihoods approach provided a theoretical element in identifying important factors in sustainable tourism development and wildlife conservation tourism. Best practices for sea turtle tourism examined in this study provided a guide and an understanding of stakeholder roles and responsibilities in this industry. Information for this study was obtained through semi-structured interviews and casual observation. The information was then analysed which helped reveal important similarities and differences among stakeholder groups, barriers, and influences. The key findings that were established and are largely interrelated and are summarized below:

- Level of education and awareness regarding sea turtles: In Gili Trawangan, a general lack of knowledge regarding sea turtles, sea turtle conservation, and the importance of sea turtles to the local livelihood and all businesses could to be addressed. This could allow stakeholders to see the benefits of developing multi-stakeholder collaboration to promote conservation in sea turtle tourism. Education and awareness were consistent themes throughout the analysis and were identified as a barrier by many stakeholder groups. Education regarding sea turtles therefore may play a positive role in contributing to an opportunity for collaboration for conservation through sea turtle tourism in Gili Trawangan.

- Financial considerations: For stakeholders to participate in collaboration, they need to perceive that they will benefit from doing so. Sea turtles were being exploited for immediate financial gain. Stakeholders could be educated on the benefits of a collaborative effort and its long term financial benefits.

- Management structure: There was not a strong management structure for the hatchery on Gili Trawangan. The way in which it was managed was not reflecting stakeholder perceptions and therefore negatively impacted both stakeholder collaboration and sea turtle conservation. Stakeholder perceptions could to be accounted for and reflected in the management structure of the hatchery to increase stakeholder satisfaction. By expanding the Ecotrust to include the turtle hatchery, modifying the hatchery to be more structured and reflecting stakeholder perceptions, stakeholder support could increase both financially and practically.

- Regulatory conflict: As local regulatory bodies in Gili Trawangan are often corrupt and/or in conflict with many individuals. They were able to obstruct much of the progress toward promoting conservation in sea turtle tourism. Educating all stakeholders (including regulators) on sea turtles, increasing stakeholder participation and interest in conservation through sea turtle tourism may allow for regulatory corruption and conflict to decline as a barrier in this particular type of project.

- General disconnect to the island: With many stakeholder groups becoming disconnected with Gili Trawangan, the intrinsic value of the island and its resources may be decreasing. Sea turtle tourism practices were reflecting short term benefits from tourism rather than practices that focused on satisfying present as well as future needs. Increasing education and stakeholder participation may help increase the perceived value of sea turtles to the local community and consequently increase conservation rather than exploitation.

- Stakeholder conflict: stakeholder conflict was a consistently identified barrier in this study. The ENGOs were in conflict. There was an identified lack of trust and respect among them. In addition, due to the

complex history of Gili Trawangan and land ownership, there was a general lack of trust between locals and expatriates. Stakeholder conflict was an important finding, because even if all stakeholders had similar perceptions like a common vision, goals, and interests, if stakeholder groups are in conflict, their ability to work together is compromised.

The findings of this study are not only applicable to the sea turtle tourism industry in Gili Trawangan, but can also be applied to sustainable tourism and environmental management literature in general. For sustainable tourism to be developed and successful, it is necessary to obtain actual stakeholder perceptions to understand real barriers and influences in the management of the industry. The factors that are revealed in this type of study may then be analysed to help develop practical recommendations and strategies to develop successful sustainable tourism development. Recommendations on how to implement a multi-stakeholder collaboration to promote conservation through sea turtle tourism were presented in this study.

The findings contribute to the movement to help protect declining sea turtle populations while recognizing that the tourism industry is imperative to the livelihoods of many local communities, especially in small developing islands. This study could act as a model to other areas around the world that face similar difficulties of successfully combining sea turtle tourism with conservation.

Appendix A: List of Interview Respondents by Stakeholder Group

Interview Number	Stakeholder Group	Classification	Category Within Stakeholder Group
1	Regulator	Indonesian	n/a
2	Regulator	Indonesian	n/a
3	Regulator	Indonesian	n/a
5	Operator	Expatriate	Dive shop
6	Operator	Expatriate	Dive shop
7	Operator	Expatriate	Dive shop
8	Operator	Expatriate	Dive Shop
9	Operator	Expatriate	Dive shop
11	Operator	Expatriate	Dive Shop
12	Operator	Indonesian	Fast boat
13	Operator	Indonesian	Fast boat
14	Operator	Indonesian	Hotel
15	Operator	Indonesian	Hotel
16	Operator	Expatriate	Hotel
17	Operator	Expatriate	Hotel
18	Operator	Indonesian	Hotel
19	Operator	Indonesian	Hotel
20	Local	Expatriate	n/a
21	Operator	Indonesian	Restaurant
22	Operator	Expatriate	Restaurant
23	Operator	Indonesian	Tour Operator
24	Operator	Indonesian	Tour Operator
25	Local	Indonesian	n/a
26	Local	Indonesian	n/a
27	Local	Indonesian	n/a
28	Local	Indonesian	n/a
29	Local	Indonesian	n/a
30	Local	Indonesian	n/a
31	Local	Indonesian	n/a
32	Local	Indonesian	n/a
33	Local	Indonesian	n/a
34	Local	Indonesian	n/a
35	ENGO	Expatriate	n/a
36	Local	Expatriate	n/a
37	Local	Expatriate	n/a
39	ENGO	Indonesian	n/a
40	Academic	Indonesian	n/a
41	Academic	Indonesian	n/a
42	Tourist	America	n/a
43	Tourist	America	n/a

44	Tourist	Europe	n/a
45	Tourist	Europe	n/a
46	Tourist	Europe	n/a
47	Tourist	Europe	n/a
48	Tourist	Europe	n/a
49	Tourist	Europe	n/a
50	Tourist	Australia/Oceania	n/a
51	Tourist	Australia/Oceania	n/a

Appendix B: Example of Interview Guide

Interview Guide: Operator Stakeholder Group

Examining an Opportunity for Stakeholder Collaboration to Promote Conservation through Sea Turtle Tourism in Gili Trawangan, Indonesia

Note: because this study took a holistic approach, each stakeholder group had their own interview guide. Each interview guide simply differed in the wording used so as to cater to that exact group. The tourist interview guide did not cover some areas that were covered in other stakeholder groups, as they are not residents or workers on the island.

Research conducted by Allison McCabe, Masters Student, Department of Graduate Studies: Environmental Applied Science and Management Candidate, Ryerson University, Toronto, Ontario, Canada

All information from this interview will remain confidential and will not be used for any other purpose than academic. By completing this interview, you indicate that the information obtained may be part of this research study. The interview is completely anonymous and voluntary.

Date: _____

Category within stakeholder group: _____

Other Considerations- circle: Expatriate or Indonesian owned;   Interviewee Expatriate or Indonesian; male or female

Level of worker: (Owner, Manager, staff, etc.):_____

Section A: Importance of Tourism and Sea Turtles in Gili Trawangan

1. Briefly explain your business. Does tourism relate to your business? How important is tourism to your business?
2. Why do you think that tourists currently come to the Gili Trawangan? What is drawing them here?
3. How does the marine environment come into play regarding tourism in Gili Trawangan? Is the marine environment <u>important for tourism</u>, or not? Is the marine environment <u>important for your business</u>? How important, why?
4. How do you feel/what do you think about these statements?:
    a. the marine environment in Gili Trawangan is of great importance to this business
    b. the marine environment in Gili Trawangan is of great importance to tourism in Gili Trawangan
5. How important is tourism in Gili Trawangan? Explain.
6. Describe the tourism industry in Gili Trawangan over the past few years? (<u>Prompts</u>: tourist arrivals, increasing, decreasing, development activities)
7. How important are sea turtles to tourism Gili Trawangan, to this business? Explain.
8. How do you feel about these statements?:
    a. The sea turtles in Gili Trawangan are of great importance to this business
    b. The sea turtles in Gili Trawangan are of great importance to tourism in Gili Trawangan

Section B: Importance of Sea Turtle Conservation in Gili Trawangan

9. Can you briefly talk to me about the sea turtles in Gili Trawangan? What do you know about them? Are you aware that all species of sea turtles are globally endangered? Have you noticed any changes in their populations over the years?
10. Has rapid development affected the sea turtles? Explain.
11. Is sea turtle *conservation* in Gili Trawangan important? <u>Why</u>? How important? Is it important to this business? To tourism in Gili Trawangan?

a. Sea turtle conservation is of great importance to <u>this business</u>

b. Sea turtle conservation is of great importance to <u>tourism in Gili Trawangan</u>

12. Is sea turtle conservation in Gili Trawangan urgent? <u>Why</u>? How urgent? Is it urgent to your business? To tourism in Gili Trawangan?

13. Who do you think <u>is affected by</u> sea turtle conservation in Gili Trawangan? (<u>Prompt</u>: Who would suffer if sea turtles disappeared? If they were abundant who would benefit?)

14. Who do you think <u>can affect</u> sea turtle conservation in Gili Trawangan? (<u>Prompts</u>: Who affects conservation in a negative way? In a positive way?)

a. Stakeholder list: Operators, ENGOs, Regulators, Locals, Educators, Tourists: agree? Are there any others?

15. Do you think that sea turtles are being conserved/protected in Gili Trawangan? How?

16. Are there any barriers to conservation that might exist in Gili Trawangan? Why might sea turtle conservation not be as good as it could be in Gili Trawangan? (Biggest problem facing sea turtle conservation?)

17. Are there any incentives (something that enables or motivates a particular course of action) or motivations that might lead to the conservation of sea turtles? Why would you, <u>a business here</u>, care about conservation of the sea turtles?

Section C: Existing Networks, Partnerships and Leadership for Stakeholder Collaboration in the Promotion of Conservation through Sea Turtle Tourism

18. In the past few years, who (individual or group) has been the real leader in Gili Trawangan on the subject of sea turtle conservation? As far as you know, have partnerships existed in the past in sea turtle conservation and tourism? (<u>Prompts</u>: Hotels, conservation groups, tour operators?

a. Was there a leader or authority figure for this partnership? Who was in charge? How did they become the leader? Did you think that they were effective as a leader? Why, Why not?

b. How did the partnership form?

19. Are you a part of any existing networks in Gili Trawangan – not necessarily related to sea turtle conservation? Explain.

20. How are you currently affecting the sea turtles? (<u>Prompts</u>: Positive? Negative?)

a.   Are you educating tourists? Working with others? If so, with who? If not, why not?

21. Do you know any best management practices for sea turtle conservation? (<u>Prompts</u>: practised in other locations?)

a. How should or could sea turtle conservation be financed? (<u>Prompts</u>: who should pay? Why?)

22. Are you interested in working with other groups to help improve the conservation of the sea turtles? Why or why not? If so, who what groups would you be willing to work with? (<u>Prompts</u>: Hotels, government, tourists, locals)

23. What incentives or motivations would make you work together with others to improve sea turtle conservation? Would this business benefit from a partnership aimed to conserve the sea turtles?

24. Are there barriers that you can describe that might arise from working with others (other stakeholders) towards improving conserving the sea turtles?

25. Do you think that there could be improvements in sea turtle conservation in Gili Trawangan? If yes, do you have any ideas how to achieve this?

a. Who needs to be (should be) involved in sea turtle conservation in Gili Trawangan? Is sea turtle conservation possible to achieve alone? Or do you need help from others in order for conservation to be successful? Is it important to get other stakeholders involved in sea turtle tourism? Why?

26. Do you think that (more inclusive) partnerships regarding sea turtle conservation and tourism are realistic in Gili Trawangan? Could regulators, educators, locals, operators (hotels, tour operators etc.), conservation groups, and tourists work together to help conserve? (<u>Prompts</u>: How? Why? Why not?)

27. Can you think of anybody who would be a good leader/convenor for a partnership involving sea turtle conservation? Why would they be a good leader? What kind of person would you want to be a leader or convenor?
28. Do you have any further comments or questions?

Thank you!

Appendix C: Example of Qualitative Interview Data Coding Sheet

Phase 1: Example of organizing full responses into coherent short responses

	Q6 Describe the tourism industry in Gili Trawangan over the past few years	
Interview Number	**Response**	**Shortened Response**
1	In 1993 tourists came here really, really friendly because or maybe most local people in this island, few local people speaking English. Tourists liked to make friends with local. Try hard how to communication. Sometimes they could not but they try. Now more tourists, yes just grow, grow, grow.	change in tourist perceptions: from friendly to less friendly. More tourist arrivals.
2	like many people has come here like in high season in June, many more coming until September. More and more people every year. More construction, more buildings.	increasing tourist numbers, no low season, more construction & buildings
3	Trawangan has a lot more people now. Some people move from Trawangan to Meno	more people, people move away from trawangan
6	i know it's got busier. It's, i mean, even since the time that I've got here there are a lot more places being built, and opening up, um accommodations, restos, and dive centres so um ya and it is getting busier. Apparently last year's high season was very, very busy in comparison to the previous year. And i think um that it will get even more busier especially with Thailand having their problems too. So they're choosing to come here instead of going to Thailand.	building development, larger and longer high season
8	More and more and more and it change also, before it used to be more backpackers and now we have also the very expensive room. And just the life is 3 or 4 times more expensive than before. So there is less backpackers and more big tourism of families. And before we used to have a low season, now it's not existing. We still have people all the time.	less backpackers more luxury accommodation, more expensive, more families, no more low season
9	first came in '99 and ya there weren't so many buildings around. It was quieter I think just nowadays, people are traveling a bit further with airlines and cheap fares. Because in 1990 it was quite expensive to get here. There was no ease of fast boats that now can bring you from Bali here in an hour, hour and a half. You had to do a 6 hour trip from Bali with busses and all. So, the tourists here now that have money and might stay in the nice little villas didn't' used to come so there's no real ... well it's all come together from that. So it just used to be more of just a traveler's island now it's sort of a bit of everything. Travelers and families.	tourists from further away, busier, ease of fast boats, more luxury accommodation, more families
11	it has grown, everything has grown ridiculously. There were 6 dive shops before and now there's potentially 12. Every dive shop used to have like 40 people max a day and now it's like 65 per dive. So that could be 130 people through in one day, and then in addition you have night diving, so maybe 140 or 150. That's a hell of a lot more than it was.	industry has grown, 2x as many dive shops, so more divers, increased number per dive
12	Around 1980 is the first time they make this area for tourism. Now in the island a lot more people. Many people come from next island come looking for job. Every year the island changing. People coming people leaving, building every six month, lots of building.	more people moving to Gili T looking for jobs, high turnover of people, fast development of buildings
13	Very different. More tourists. More buildings	More tourists, more buildings

14	Increasing, more families, more development Villa Ombak is soon opening another resort on the other side of the island. It should open soon – for like 100s of guests.	increasing tourist numbers, more families, more resort development (luxury accommodation)
15	i think is more come here now, bigger, yes	more tourist arrivals
16	we're going to be building another 12 villas just along the strip here. growth here has been phenomenal, just phenomenal. Just incredible...we've been here for 7 years, and the first year was just after the bombs in Bali and it really hit Bali badly, but it drove people from Bali who still wanted to go to Indonesia, to Lombok, but Lombok was still sort of struggling from the riots that they had in the 80s, and so people were coming to Gili T, Meno, and Air...Gili Air is really I would say what Trawangan used to be like ten years ago. And because it's back on the map and it's getting a lot of press, you know, it's on trip advisor, facebook, um people that were here 7-10 years ago are like "oh my god, gili trawangan! I haven't been there for ages!" so they come, and they're like flabbergasted "what happened here?" ... but, in a good way....because a lot of it is really really productive for the locals on the island. They've never been as prosperous as they are at the moment. yes a lot of people from the other smaller islands, and from Lombok – from Symbowa, umm and also from Bali. It's a very mixed culture – as much as it's muslim, predominantly, it's very mixed. We have Buddhists, hindu, Christian....oh yes, also the demographic has changed too though. It was very much backpackers, and you could say liek 18s-32s...and because of the more sophisticated accommodation that's available now, you're getting older people and families with children, because it's safe.	phenomenal growth, Gili Air is old Gili T (10 yrs ago), lots of press: trip advisor, facebook., attracting workers from other areas (Bali and Lombok), change in demographic: less backpackers of 18-32 no more sophisticated accommodation so older people and families with children, Bali Bomb not many tourists

Phase 2: Categorizing Responses

Changes in the Tourism Industry in Gili Trawangan	Respondent	Frequency
Increasing number of tourists	1, 2, 6 , 8, 13, 14, 15, 16, 17, 19, 22, 23, 24, 26, 27, 29, 30, 32, 33, 36, 37, 39, 45, 46	24
Increasing Development	2, 6, 9, 11, 12, 13, 14, 16, 17, 20, 22, 23, 25, 26, 27, 30, 31, 35, 36, 37	20
Tourist characteristics and demographics	1, 8, 9, 11, 14, 16, 17, 22, 23, 27, 29, 31, 34, 35, 45, 46	16
Increased numbers of people coming and looking for work	3, 11, 12, 19, 20, 24, 25, 30, 32, 33, 36, 37	12
Increasing Costs	8, 31, 35	3
Increasing Conflict	20, 30, 34	3
DK/NR	5,7,18,21,28,37,40,41,42,43,44,47,48,49,50,51	16

N=48

DK/NR: Don't know/no response

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