The Importance of Institutional Arrangements for Sustainable Livelihoods: The Case of Tun Sakaran Marine Park, Sabah, Malaysia

by

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A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Doctor of Philosophy
in
Geography

Waterloo, Ontario, Canada, 2015

AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Although there has been growing research examining ecotourism from a livelihoods perspective, there is still lack of explicit and critical analysis of how people relate to the institutional environment, where power lies, which influences the relationships among ecotourism, community development, and conservation of parks and protected areas. Therefore, it is crucial to examine the institutional and livelihoods impacts of park establishment on communities living within the park. Specifically, the establishment of a park affects local communities' livelihoods, as they may face restrictions on extracting resources as their main source of living. It is necessary to explore institutional arrangements and how they affect livelihood sustainability.

This study was conducted in Tun Sakaran Marine Park (TSMP), Sabah, Malaysia. It is the first and the only marine protected area in Sabah to include private land and recognize native customary rights (NCR) especially in matters regarding land. This exploration is especially timely for the communities in TSMP, where some are entitled to native rights and some have been given usufruct rights by native rights holders and yet they are living in a gazetted park under state administration. It is important to examine the institutional arrangements for park management in this unique context for they are fundamental to the well-being of park's communities. More generally, it is also an example of the common challenge of identifying an appropriate role for local communities in park establishment, especially in coastal settings.

A sustainable livelihoods (SL) approach was adopted as a framework to analyze the relationships among institutional processes and organizational structures (i.e. NCR, institutional arrangement), livelihood strategies and livelihood outcomes. In-depth household surveys and stakeholder interviews were undertaken during three months of fieldwork conducted in 2012. Although TSMP contains beautiful islands, and has many attributes and potential to be suitable for ecotourism development, it was found that the local communities are not involved in ecotourism. At the same time, dive operators are bringing divers and snorkelers to the park on a daily basis. Therefore, institutional support should be strengthened if ecotourism is to become a livelihood strategy for communities in TSMP.

Keywords: Marine Park, Institutions, Institutional Arrangement, Native Customary Rights, Sustainable Livelihoods, Ecotourism

Acknowledgements

Dedication

To my (late) father and (late) mother, for their endless love, courage and sacrifice. Thank you for everything…

And to my lovely son Hayyan Hayden, I would not be where I am at today, standing at the finish line…if not for him.

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Chapter 1
Introduction to the Research

1.1 Introduction

Major drivers of change in the social, institutional, and economic environments of marine ecosystems are often anthropogenic (UNEP, 2006). For instance, such ecosystem were influenced in part by the inconsistency of government policies regarding the economic and conservation objectives of marine areas when Marine Protected Areas (MPAs) were established and caused land use change that ultimately have had impacts on the livelihoods of the communities in and around such reserves. Moreover, marine areas are of great spiritual importance to many people, providing cultural and spiritual contributions (UNEP, 2006). Such changes have resulted in the introduction and advocacy of numerous approaches such as Sustainable Livelihoods (SL), Integrated Conservation Development Project (ICDP), and community-based tourism projects, in order to assist local communities whose livelihoods are affected and, at the same time, to preserve the environment. Traditional approaches to the governing of park and protected areas (PA) that often sidelined the importance of local involvement and contributions are no longer practical ways of accomplishing the conservation objectives of PAs (Lai and Nepal, 2006). The new paradigm for governing PAs emphasizes the importance of community participation, local stewardship, and access to the decision-making process in order to achieve management goals. Ecotourism has often been chosen as a strategy for simultaneously conserving the environment of PAs and enhancing the well-being of the local communities through active and effective participation (West et al., 2006; Lai and Nepal, 2006; Honey, 1999; Ziffer, 1989).

Based on the aforementioned issues, this study integrates institutional theory, ecotourism thinking and a Sustainable Livelihoods approach to investigate the relationships between institutional arrangements, native rights, and ecotourism for livelihoods sustainability. The first chapter presents the theoretical background of a Sustainable Livelihoods approach, ecotourism thinking and their relationships with institutional structures and processes. This is followed by the problem statement, research purpose, objectives and scope of the study, and research questions. The last section describes the structure of this dissertation.

1.2 Theoretical background on the main research components

Protected areas have often been regarded as the basis upon which biodiversity and conservation of the environment for particular species and habitat are supported (Karki, 2013). At the same time, as the concept of PAs has evolved and as the result of the ongoing debate over PAs between conservationists and social advocates, new roles are being assigned to PAs. These include alleviating poverty by providing ecosystem services, supporting ecotourism, and sharing conservation benefits for socioeconomic development (Ferraro and Hanauer, 2011, as cited in Karki, 2013, pp. 988). However, commonly inhabited by rural communities who live in poverty and surrounded by agricultural land in the case of terrestrial PAs and marine resources for MPAs, often the establishment of protected areas has had unfavorable effects through a reduction in food security and a loss of livelihoods for local people (Karki, 2013). Hence, numerous incentive-based programs (IBPs) have been advocated, such as community-based conservation (CBC), community-based tourism and integrated conservation and development projects (ICDP), to reduce the adverse social effects for local communities (Lai and Nepal, 2006; Garnett et al., 2007; Karki, 2013). Some research studies have highlighted the failure and negative impacts of such programs, including lack of attention to social differences, wishful expectations without

meeting targets, and an unequal distribution of benefits (Naughton-Treves et al., 2005; West et al., 2006). In addition, one significant limitation for the evaluation of IBPs is lack of information on the impacts of protected areas and conservation incentives at individual or household levels. This means that the overall impacts of IBPs remain uncertain, especially how impacts vary in different contexts because of the highly complex and heterogeneous characteristics of communities and the settings in which they operate (Lai and Nepal, 2006). Furthermore, it has been argued that ICDP frameworks commonly lack adequate acknowledgement of the vulnerability context of communities, such as trends, shocks, and the states of their capital assets, that might hinder the adoption of appropriate and timely interventions (Garnett et al., 2007). Moreover, in ICDP, diversity in governance and governance arrangements regarding the functions of institutions in managing PAs are thought to be important in achieving ultimate goals (Ostrom, 2005). However, ICDP conceptual frameworks seldom adequately address issues of legality, laws, governance and policy that will ultimately influence the success of the projects and other initiatives i.e. these things have only been considered as aspects of social capital rather than as influences on all capital assets and, therefore, requiring consideration in all other asset components.

Therefore, the concept of Sustainable Livelihoods (SL) is used in this study to bridge the gaps that have been highlighted in IBPs studies concerning the impacts of MPAs on communities' livelihoods. Given a primary interest in the well-being of local people and the precarious nature of their means of sustenance, the prevalence of poverty in the developing world and the considerable evidence that local lifestyles are disrupted by PA establishment, it is appropriate to adopt a SL framework to explore local livelihood issues. A SL approach is consistent with the theoretical tenets of 'sustainability' that promote integrated and balanced

economic, environmental and socio-cultural development. A SL approach provides a more clear focus than sustainable development that is easier to discuss, observe, describe and quantify (Tao and Wall, 2008; Tao and Wall, 2009). Although a SL approach is people-centered, it offers some cross-sectoral linkages to crucial dimensions of sustainable development i.e. economic, environmental, institutional and social aspects, and provides a practical way to address human interaction with nature (socio-ecological context), livelihoods struggles (economic context), and socio-cultural changes (Keely, 2001).

This research, in addition, espouses four dimensions of sustainability that can be applied to achieve SL in MPAs:

1. Environmental sustainability is achieved when natural resources are enhanced and conserved for future generations.

2. Economic sustainability is achieved when income gradually increases and livelihoods are sustained.

3. Social sustainability is achieved when communities are empowered and their overall well-being is improved.

4. Institutional sustainability is achieved when structures, such as organizations, and processes such as the application of policy and laws, have the capacity to govern, manage, facilitate and provide support to enhance and sustain livelihoods assets.

(Adapted from: DFID, 1999)

In addition to the three dimensions of sustainability (economic, environmental and social), the institutional context is critical for a SL approach because of the increasing focus on issues of rights, power and governance, and the understanding that the process and structures that influence policy-making for development eventually affect the final outcomes that can be accomplished and sustained (Keely, 2001; Pasteur, 2001). Full sustainability is difficult to

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achieve and may not happen, and an intensive process and continuous monitoring to accomplish optimum conditions for all of the dimensions stated above should be assessed periodically to ensure that the livelihoods system is moving in a positive direction (DFID, 1999).

In an evaluation of ecotourism as a livelihoods strategy, it is important to recognize that the impacts identified will differ according to the perspective taken. A single-lens perspective is a notable deficiency of much previous research assessing ecotourism (Stronza, 2001). Often, from an industry perspective, tourism's impacts are mainly assessed in economic terms (Vajirakachorn and Nepal, 2014). Governments typically adopt this perspective, treating tourism like any other industry in the economy (Vajirakachorn and Nepal, 2014). This often results in unfavorable acceptance at the local level. Especially in the case of a marine park, economic factors must be in line with other important factors in governing protected areas i.e. environmental, social and institutional. A community-based perspective is also concerned with tourism impacts but, in contrast to an industry approach, tourism is treated as a strategy for stimulating positive change at the site level to improve the welfare of the local host communities (Vajirakachorn and Nepal, 2014). As a result, impacts are more broadly defined and may include a variety of socio-economic, cultural and environmental costs and benefits. However, a community-based perspective in the evaluation of ecotourism may increase the risks of parochialism, which could lead to inadequate support from the central or higher government (Jones and Burgess, 2005).

Often, an institutional perspective is missing in evaluating ecotourism both in local and broader contexts. Institutions play an important role in any kind of development and, in the case of ecotourism, can support community participation in park management decisions to improve and sustain livelihoods. Political and power issues are prevalent constraints in community

development and they can be seen both within and between institutions (Keely, 2001). This research will focus particularly on the entitlement of the local community to be involved in the institutional arrangements that regulate ecotourism activities or other livelihoods strategies. It is crucial to examine how legal status can play a role in empowering a community by enabling them to participate in an institution that is representative and entitles them to have access to the decision-making process and knowledge of government decision-making processes. Thus, evaluation from an institutional perspective is crucial in order to understand the local context (formal/informal local institutions) and the wider structural context (central / national government) that influence development at a particular place. A SL perspective recognizes that economic, sociocultural, environmental and institutional impacts are interrelated (refer SL Framework, Figure 2.3).

1.3 Problem statement

Despite growing research examining ecotourism from a livelihoods perspective, there is still lack of critical and explicit analysis of how people relate to the institutional environment, where power lies, which influences the relationships among ecotourism, community development, and conservation of a protected area (Carney 2003). In fact, in relation to empowerment and institutional arrangements in protected areas, critical analysis often focuses either on the 'provider perspective' (the original SL perspective sought to find ways to make providers i.e. the state, NGOs, private sector, etc. be more responsive to the needs of users i.e. community) or locally-devised institutions rather than simultaneously examining both local and higher management structures in order to understand the power distribution among the protected areas' stakeholders (Carney 2003). Such information can inform the arrangement of an institution that represents all stakeholders and balances rights and responsibilities. It remains to be explored how

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institutions and processes can encourage ecotourism development that benefits the local community and the other stakeholders in a sustainable manner.

In addition, there are very few studies that have adopted livelihoods thinking to understand the process of change in livelihoods (i.e. from traditional livelihoods such as fishing and hunting to ecotourism activities) in Southeast Asia (Fabinyi, 2010). Much ecotourism research in Southeast Asia, particularly in Malaysia, has been driven by an economic purpose and has been viewed from and based on a single theoretical lens e.g. development theory with an economic emphasis (Din, 1982; Samdin, 2008; Fabinyi, 2010).

Tun Sakaran Marine Park (TSMP), Sabah, Malaysia, is the only marine park in Malaysia that has recognized customary laws; hence local communities have the rights to stay and live in their hereditary land (islands). The establishment of marine parks inevitably brings huge impacts on people's livelihoods, especially in the areas where people mainly or even solely depend on marine resources. For instance, local hostility towards the park has occurred when they have been denied access to marine resources without the provision of alternative livelihoods supported by the responsible authority. However, the provision of Native Customary Right (NCR) entitles the local community (local citizens) living within the park boundary to own property within the park e.g. land, fruit gardens and seaweed farms. Such entitlements should empower community members to become involved in park development, especially in regards to livelihood improvement. Furthermore, other community members, such as the stateless Bajau Laut and the Suluk (immigrants from the Philippines), also depend on the usufruct rights given to them by their patron who was entitled to the NCR. This complex situation, with multiple diverse groups of people living within the marine park, should be comprehended and taken into account in the planning for park development.

Given the above situation, the establishment of TSMP can either provide benefits or, if it is not properly managed, can also be an unfortunate event for the local communities. Therefore, this study is conducted to investigate the impacts of park establishment on communities and how institutional structures, such as customary laws, can influence communities' empowerment to be involved in park management, especially in order to plan and develop livelihoods strategies to divert their dependency on extracting marine resources.

1.4 Research purpose

This doctoral research study will explore the implications of marine park establishment on communities' livelihoods. Specifically, the research will examine institutional structures i.e. institutional arrangements and the native customary rights (NCR) of the local communities, and how these entitlements influence the livelihoods and survival of communities in the park. This exploration is especially timely for the communities in Tun Sakaran Marine Park (TSMP), where some are entitled to native rights and some have been given usufruct rights[1] by native rights holders and yet they are living in a gazetted park under state administration. It is important to examine the institutional arrangements for park management in this unique context for they are fundamental to the well-being of local residents. More generally, it is also an example of the common challenge of identifying an appropriate role for local communities in park establishment, especially in coastal settings. Furthermore, after 10 years of establishment, all of the management's livelihoods strategies in TSMP that plan to divert communities' dependency on marine resources, including ecotourism, giant clam hatchery etc., have not yet been implemented. Therefore, the findings of this study can be an important input to guide future development not only in TSMP but also in other protected areas in Malaysian and all over the

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[1] Individual or household rights of use which exist under communal tenure systems (Bruce, 1998)

world that shared similar attributes, especially in planning and developing ecotourism as a complementary means of livelihood diversification.

This study will adopt an SL perspective that integrates three theoretical lenses: 1) A SL approach: to understand the concept of development through livelihoods thinking; 2) Institutional theory: to understand the policies and rights in the study site and how institutions play a role in supporting or undermining sustainable livelihoods; and 3) Ecotourism concept: to understand the concept of ecotourism and how it can help in sustaining local livelihoods in protected area.

1.5 Research scope and objectives

The scope of the study is to explore and investigate the relationship between institutional arrangements and livelihoods strategies in achieving livelihoods sustainability and improved community's well-being. Those are main components of Sustainable Livelihoods Framework (SLF) (Figure 2.3). Hence the study is intended to address the following questions:

1. What impact does marine park establishment have on the livelihoods of local communities whom entitled to native rights?

2. What are the relationships between institutional structures (e.g. arrangement, organizations) and processes (e.g. policies, customary/property rights), and livelihoods outcomes?

3. How communities construct their livelihoods strategies to cope with changes and challenges posed by the park's rules and regulations?

4. Is ecotourism an appropriate alternative livelihood strategy for marine park context? How do communities and park stakeholders perceived ecotourism?

5. What is the existing institutional arrangement for managing the marine park? What

factors influenced institutional arrangement? Is the current arrangement for managing the park efficient and equitable?

Analysis will focus on how the differences, in the context of institutional structures and processes, influence the communities' livelihoods strategies and opportunities to participate in and benefit from park development. In response to these differences and the questions addressed above, the following research objectives were developed:

1. To investigate the impacts of park establishment on the communities' livelihoods and strategies that can cope with changes and challenges.

2. To identify the role of institutional structures i.e. institutional arrangement, and processes in encouraging the communities' participation in park development and in sustaining livelihoods.

3. To identify the current institutional arrangements and the factors that characterizes them.

4. To investigate whether increasing tourism activities affect communities' livelihoods strategies and to investigate whether ecotourism is a possible alternative to diverse communities' livelihoods.

In order to meet these objectives, a case study approach was employed using multiple methods of data collection. Household surveys were conducted in 79 households drawn from all six inhabited islands in TSMP. Guided by a SL Framework (SLF) (Figure 2.3), ethnographic, social, economic, and historical data are used to document and compare the manner in which different ethnicities and entitlements influence livelihoods strategies, empowerment, and opinions/attitudes towards parks and ecotourism. A wide range of quantitative and qualitative approaches is brought together within a standardized framework (SLF) to guide the collection of

empirical evidence and the analysis of socio-cultural, institutional, livelihoods, and ecotourism impacts.

Figure 1.1 reveals possible relationships between the key research components. Efficient institutional arrangements and legal entitlements will encourage communities and park authorities to implement various strategies to cope with changes and challenges posed by park establishment. Through the implementation of various supportive strategies and meaningful participation from communities, there is a greater likelihood that desired SL outcomes would be achieved.
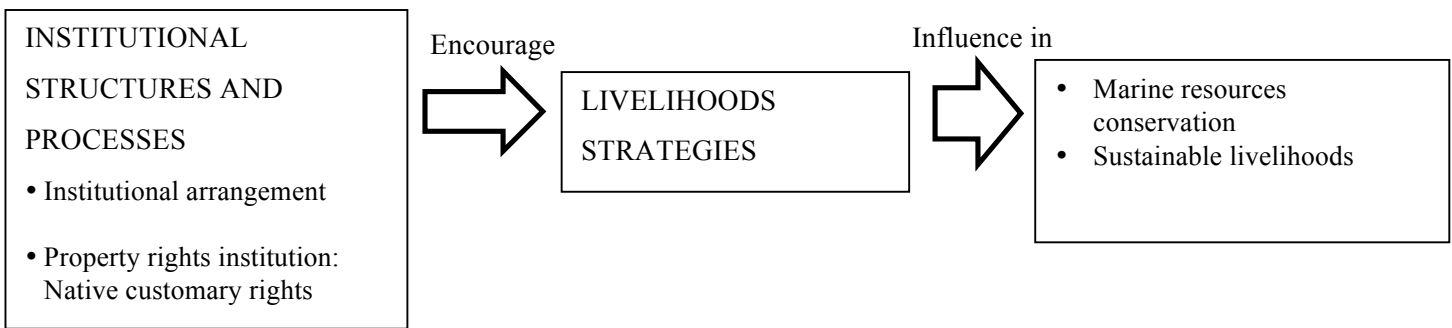
Figure 1.1: Conceptual framework showing the interrelation between key research components

1.6 Structure of the dissertation

This doctoral dissertation is organized into eight chapters. The first chapter introduces the broad context from which the purpose, scope and objectives of the research have been formulated. Here, many of the important terms, concepts and theory used in the dissertation are mentioned and a framework describing the relationships between the key research components is presented.

The second chapter commences with a thorough review of the literature pertaining to marine protected areas (MPA), institutional context, and ecotourism as a SL strategy. In addition, the chapter provides a review of the scholarly discourse related to ecotourism concept, institutional theory, and a sustainable livelihoods approach. The issues and challenges regarding

marine parks and the importance of the institutional arrangements in addressing problems related to MPAs and communities are discussed. Importantly, discussion of a SL approach is presented since this is used to guide the overall approach taken to the investigation.

The third chapter discusses the research approach and design, and outlines the importance of the positionality of the researcher and the local research assistant. After providing a review of the similarities and differences associated with qualitative and quantitative research, the four main research questions are delineated. These questions are followed by a description of sample selection methods, data collection, and information analysis. After providing a comprehensive review of the research methodology and the methods used for conducting field research amongst TSMP communities, the chapter concludes with a consideration of the various research limitations and the challenges encountered.

The fourth chapter provides an overview of TSMP, outlining the environmental, demographic and livelihoods of the study area. This information is necessary in order to understand the situation of the communities in the marine park, and it has implications for the livelihood strategies of the Bajau, Bajau Laut and Suluk people. An overview of the local geography, demography, NCR entitlement, and livelihood activities is provided for each of the three ethnic groups. Through comparison of the characteristics of each ethnic group, it is possible to appreciate the context from which the local residents select their livelihood strategies.

The fifth chapter presents an analysis of the information gathered from the household surveys and participatory events. Various statistical tests are used to decipher the strength of relationships and their level of significance, and data are also presented in a visual form. The relationships between the different variables are evaluated in a livelihoods context and the results for the three ethnicities are compared and contrasted.

The sixth chapter provides a general discussion and interpretation of the research results. The results of the sixth chapter are interpreted through the 'lens' of the Sustainable Livelihoods Framework (SLF). The chapter concludes by linking theoretical and practical knowledge toward SL and moving from theory to praxis by providing an overview of a practical community-based ecotourism in a marine protected areas context.

The seventh chapter presents the conclusions that can be drawn from the study. First, the original research goals and objectives are revisited and answers to each of the original research questions are summarized. Opportunities for further research are submitted, followed by the author's final conclusion.

Chapter 2

Marine Protected Areas (MPA), Institutional Context, and Ecotourism for Sustainable Livelihoods

2.1 Introduction

Butler and Boyd (2000) demonstrated that tourism and PAs have long had a synergistic relationship but there are still issues that reflect difficulties in ensuring beneficial outcomes of their interrelationships. Economically, their overall relationship is usually positive. Nature-based tourism, which has been growing substantially globally, is strongly supported by the existence of PAs. Ecotourism, as a subsector of nature-based tourism, is often seen as an appropriate strategy that fits with the environmental and social objectives of PAs (Eagles, 2003).

While the vast literature commonly recognizes the benefits of ecotourism in MPAs, especially the potential contributions to conservation and community development, there has been limited synthetic work on the economic, social, cultural, environmental and institutional interrelations that would lead to sustainability (Tao and Wall, 2009). This lack may compromise the arguments on the genuine contributions of ecotourism that challenge its roles in community development and environmental conservation. Based on institutional theory, ecotourism thinking, and a Sustainable Livelihoods approach, this review emphasizes how institutional means i.e. legal status (NCR) and institutional arrangements influence livelihoods strategies by empowering people to be involved and participate in protected area management and development.

2.2 Marine protected areas (MPA): Definitions and discourse

Emerging in the context of environmental conservation, a protected area has been defined as:

> *"....a geographically defined area which is designated, or regulated, and managed to achieve specific conservation objectives."* (Article 2, Convention on Biological Diversity (CBD), 1992)

The focus of the above definition is clearly on areas that have been designated for conservation. This reflects the early purpose of traditional PA systems, which usually recognized the conservation of the physical environment, biodiversity, animals, plants and the biophysical environment and processes as the primary objective for the establishment of PAs. However, as the concept of PA has evolved, and many countries have gained an appreciation of the importance of parks and PAs, other significant values, such as cultural values, have been added. This emphasis is indicated in the International Union of Conservation of Nature's (IUCN) definition of PA as follows:

> *"...a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values."* (IUCN, 1994)

Both definitions from CBD and IUCN agree that PAs emerged from the idea of protecting biodiversity through specific regulations in designated areas that require effective management to accomplish conservation goals (Philips, 2003). In other words, the nature of biodiversity is non-interchangeable in that it requires a focus on place-based protection (Naughton-Treves et al., 2005), e.g. the survival of orang utang in Sepilok Orang Utan Sanctuary within Kabili-Sepilok Forest Reserve, Sabah, Malaysia. Despite the similarities of these two definitions, the one from IUCN is more meaningful today. The IUCN's definition implies that properly designed and managed PAs are essential in order to sustain biodiversity and, at the same time, to improve the relationships among natural phenomena, its social and cultural significance,

ecosystems and their processes (Worboys et al., 2005). The definition also is at the root of the ongoing debate over PAs between conservationists and social advocates that have resulted in new roles being assigned to PAs. While conservationists argue that environmental protection is of the utmost importance in order to achieve sustainability, social advocates suggest that most PAs have denied local people's rights and have resulted in the poor distribution of benefits to the local people (Wilkie et al., 2006). Thus, social advocates have suggested that only people-centred efforts can enable the communities to benefit from the establishment of gazetted parks and PAs and get them actively engaged in conservation work (Agrawal and Gibson, 1999; Langton et al., 2005; Wilkie et al., 2006).

	As it was: PA was…	**As it is becoming: PA is…**
Objectives	• Set aside for conservation • Established mainly for spectacular wildlife and scenic protection • Managed mainly for visitors and tourists • Valued as wilderness • About protection	• Run also with social and economic objectives • Often set up for scientific, economic, and cultural reasons • Managed with local people more in mind • Valued for the cultural importance of so- called wilderness • Also about restoration and rehabilitation
Governance	• Run by central government	• Run by many partners
Local people	• Planned and managed against people • Managed without regard to local opinions	• Run with, for, and in some cases by local people • Managed to meet the needs of local people
Wider context	• Developed separately • Managed as an 'islands'	• Planned as part of national, regional, and international systems • Developed as 'networks' (strictly PA, buffered and linked by green corridors)
Perceptions	• Viewed primarily as a national asset • Viewed only as a national concern	• Viewed also as a community asset • Viewed also as an international concern
Management techniques	• Managed reactively within short timescale • Managed in a technocratic way	• Managed adaptively in long-term perspective • Managed with political considerations
Finance	• Paid for by taxpayer	• Paid for from many sources
Management skills	• Managed by scientists and natural resources experts • Expert-led	• Managed by multi-skilled individuals • Drawing on local knowledge

Table 2.1: Contrasting paradigms: A classic model versus a modern paradigm (Phillips, 2003).

As the approach to PAs has changed, so the ideas concerning the establishment and management of PAs have evolved (Phillips, 2003). The evolution of PA paradigms is summarized in Table 2.1. Especially noteworthy is the contrast in every aspect of the classic and the new paradigms of PAs. As can be seen from the table, in the great majority of aspects, the welfare of local communities is receiving greater attention, with 4 out of 5 modern objectives incorporating the social, cultural and economic importance of local people. While it may be

possible to put such changing ideas into action on the ground, some people associated with PAs still refuse to acknowledge that PA systems are now different, firmly holding on to the classical paradigm (Phillips, 2003). The divergence of opinions creates challenges for the designation and management of PAs, especially in developing countries.

West et al. (2006), in their analysis of the social impacts of PAs, viewed the designated area as reflecting ways of seeing, understanding and producing nature (environment) and culture (society). In contrast to the traditional western ideas about the separation of nature and culture, which often lead to significant social and livelihoods impacts of local people, they demonstrated that PAs can be used as a tool to create reciprocal relationships between nature and culture. Although they have challenged the IUCN categorization of PAs as being externally imagined with limited regard for local descriptive categories, the changing paradigm (and categories) is actually responding to advances in the purposes of contemporary PAs.

For the purpose of this research, empirical work will focus on a marine protected area (MPA). An MPA has been defined as:

> *"An area designated to **protect marine ecosystems**, processes, habitats and species, including the essentials of **marine biodiversity** and which can contribute to the **restoration and replenishment of resources** for **social, economic and cultural enrichment**."* (WWF, 2005)

This research focuses on an MPA that not only protects natural areas but also includes social, economic, and cultural interests. This is in line with the principles of sustainable development that emphasise responsible stewardship and appropriation, as well as the active participation of communities in the management of natural resources.

MPAs are further acknowledged as being referred to by a variety of terms including 'reserves', 'closed areas', 'no-take zones', 'fully protected areas', 'sanctuaries', 'marine parks' and 'locally managed marine areas'. They may include areas managed by governments, local

communities, non-government organizations, and other stakeholders or partnerships of the above, including the private sector (Techera and Troniak, 2009). Typically, a MPA is managed to encourage the sustainable use of resources through the implementation of some form of spatial, temporal, and possibly voluntary restriction on activities and usage. Examples include zoning, permits, and areas designated for cultural significance (IUCN, 1994).

The IUCN classification system of PA is commonly used by MPAs (Appendix A). The IUCN has established six categories of protected area covering a wide range of management measures with an overall purpose of biodiversity protection. In applying the categories, the first step is to determine whether or not the site meets IUCN's definition of a protected area. This study refers to a marine park as a MPA that will meet the requirements of IUCN Category II where the word *park* refers to a relatively undisturbed natural sea area (and associated land), designated to highly protect the ecological integrity of ecosystems. It is also regarded as being the most compatible form for ecotourism purposes, which will be associated with sustainable livelihoods strategies.

2.2.1 Issues and challenges of managing MPAs

Coastal and marine areas are often marked by attractive marine natural resources (e.g. crystal-clear water, fish, coral reefs) and considered as common resources that are characterized by difficulty and the costs involved in the exclusion of users and the subtractability of resources (Ostrom, 2003). Therefore, to avoid overexploiting the resources that may lead to detrimental effects, it is important to improve the management in those areas through the establishment of Marine Protected Areas (MPA) (Salm and Clark, 1984; Worboys et al., 2005; Rosendo et al., 2011). However, despite the designation of MPAs, they continuously face challenges on how to manage the resources sustainably, especially when they are common property resources (such as

water and fish). One of the reasons that MPAs fail to meet their conservation objectives is that many MPA institutions typically given insufficient attention to social factors (which are often substantial problems with the commons) (Rosendo et al., 2011), especially when it is related to acquiring support from users to manage access to park resources. The social and economic issues that need to be addressed in terms of managing access include the livelihoods of the local or surrounding communities, recreational activities or tourism development, and other economic interests that may include shipping routes that occur within the MPA (Salm and Clark, 1984).

Local communities living in and around an MPA are likely to depend heavily on marine resources. Thus, they should be allowed to improve the quality of their lives and to benefit directly and equitably from the conservation and sustainable use of natural resources within their territories (WWF, 2008). Of course, it is never easy to implement such a principle without full acceptance and cooperation from local people and management authorities. Consequently, community involvement in management strategies is suggested as a requirement in the search for sustainable use of resources (Rosendo et al., 2011; Arceo and Granados-Barba, 2010). Agrawal (2001) demonstrated that many resources management scholars agree that local institutional arrangements for managing resources will influence the efficient use of resources. However, he further suggested that focusing on local institutions alone is not sufficient to achieve sustainability of resource use for it is necessary to recognize external and higher social, physical, and institutional environments that may affect local institutions. For instance, recreational activities and tourism development in a MPA may affect local arrangements for managing access to park resources. Although zoning and control of use through strict regulations are often applied to recreational and tourism activities, still, the decision to give tourists access to a specified place within a MPA should be a collaborative decision. Similarly, shipping routes within the MPA are

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commonly bonded with MPA legislation and may require arrangements with multiple organizations, often at different levels. In addition, economic interests in a MPA also contribute to the creation of external arrangements, especially when economic development is needed to supplement local livelihoods and to support the management of the MPA financially.

Therefore, managing access to MPA resources is a challenging task, especially different users have to be identified, and different needs satisfied. Ostrom (1990) suggested eight design principles related to the idea of self-organization or self-management of resource users and institutional arrangements to manage resources. Nevertheless, we must first understand the attributes of marine resources from the perspective of common resources.

2.2.2 Understanding marine resources as common pool resources

Marine resources (e.g. fisheries, water) are also widely regard as common pool resources (CPR) that possess two major attributes: 1) Difficulty of exclusion: defined as the difficulty of excluding individuals from benefiting from resources; and 2) Subtractability: defined as one person's consumption subtracts from the total available to others (Gardner et al., 1990; Ostrom et al., 1999; Ostrom, 2003). These key attributes of marine resources are very important to the understanding of the problems of managing marine resources in general and marine resources within a MPA specifically, from both economic and environmental perspectives. Table 2.2 illustrates types of goods and explains the classification of goods and why marine resources are considered common resources.

	One person's consumption subtracts from the total available to others	One person's consumption does not subtract from the total available to others
Exclusion is feasible	**Private goods** Clothing Congested toll roads Ice-cream cones	**Natural monopolies** Fire protection Cable TV Uncongested toll roads
Exclusion is not feasible	**Common pool resources** Fish in the ocean The environment Congested non-toll roads	**Public Goods** National defense Knowledge Uncongested non-toll roads

Table 2.2: Classification of goods (Adapted from Ostrom, 2003)

Ostrom (2003) demonstrated that exclusion requires a strong and stable management capacity if it needs to be imposed. That capacity may include physical devices (such as fencing and electronic sensing) as well as institutional means (that create and monitor property rights to exclude others). If resources are excludable, people can be prevented from using the resources and laws will recognize and enforce a particular property regime. However, Ostrom later described that common resource problems occur when the mechanism to impose physical and institutional means for exclusion are costly and difficult. These differences sometimes depend on the environment in which the resources are located. For instance, it is more difficult to exclude users from ocean resources compared to forest resources and it is complicated to identify property rights within a protected area compared to a non-protected area. Therefore, although an MPA is established, the problems of managing marine resources may still exist due to lack of a management mechanism and information to resolve issues of exclusion, especially in identifying who should be excluded from accessing marine resources.

The second attribute of marine resources is subtractability. Marine resources are subtractable, meaning that one person's consumption diminishes another person's resource availability (Tucker, 1999; Ostrom et al., 1999; Ostrom, 2003). For example, one fisherman's yield of fish will make those fish unavailable to other fishermen. The problem with this characteristic of common resources is the potential for overuse of resources, especially when there are economic incentives e.g. ecotourism, fisheries etc. On the other hand, public goods are significantly different from common resources where public goods are neither excludable nor subtractable (Table 2.3). For instance, one's use of a journal paper as his/her reference will not subtract from others' access or use of the same journal because such knowledge is one type of public good.

Ostrom et al. (1999) and Ostrom (2003) suggested that those two main attributes are the keys to common resources problems where, without proper management of resources, resource users tend to work on their own short-term goals to produce results that are not mutually beneficial to all users. Moreover, without effective rules that clearly define access and define rights and duties of people involved in managing resources, the main purposes of MPA establishment are unlikely to be accomplished.

2.2.3 Property rights of marine resources

From the perspective of local communities, people often look at a MPA as a threat to their daily life since there are often regulations defining access rights and boundaries of the marine resources on which they depend (Rosendo et al., 2011). Zoning and controlling can help to avoid conflicts if they reflect human values, activities and opportunities (Worboys et al., 2005); however, without clear definitions of who has access and who does not, it is still difficult to manage access to MPA resources. Agrawal's (2001) analyses of the work of Robert Wade

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(1988) concluded that effective rules on access are hard to establish and enforce due to some conditions: 1) different kinds of users with different needs; 2) unclear boundaries; 3) users living within the resource areas; and 4) when rule-breakers are difficult to detect. Those challenges are issues for MPAs. As a MPA is being established, previous and future users of the area should be identified and consulted. It is very important to know their needs and to provide the best possible solutions that will benefit both users and, thus, the MPA. Sometimes, natural phenomena may also cause boundary problems in MPAs, such as movements of barrier islands and catastrophic events that move some areas spatially. Often inconsistency in zoning is a problem of boundary determination. Moreover, if there are communities living within the MPA, zoning has to be consistent so that they know their limits. It is very important to consult local users within the MPA since they may have known no limits and boundaries to their accessibility to the MPA's resources before the MPA was established. Thus, explanation, education, and fair treatment should be given to them in order to produce mutual understanding and benefits. With the acceptance and involvement of local users, they will more likely feel responsible for the protection of marine resources and, therefore, will be helpful to the MPA's authority in terms of monitoring access to the MPA's resources, and detecting any unusual and suspicious activities (Agrawal, 2001).

Ostrom (1990), in her discussion about the eight design principles, suggested that one of the very first principles in managing resources that are shared by groups of people is to define clearly individual access rights and boundaries of the resources. This important step is very useful for both local and external users to identify legal members within their groups, to identify areas that people can go to or use, and to know exactly the boundaries of conservation areas. The misunderstanding of common resources and other types of goods has led to confusion between

common-property institutions and open-access institutions. However, in the case of MPAs, national, regional, or local governments, communal groups or private institutions may own the MPA but they are commonly associated with common-property regimes to govern and manage the protected areas.

A property right may be one of the solutions for giving access rights to some groups of people to a MPA's resources. It should define clearly who has access (extractive and non-extractive users) and, at the same time, draw clear boundaries of the MPA's zoning that might include no-take areas, recreational areas, etc. A property right is an exclusive authority to determine how a resource is used and to act accordingly in relation to other individuals regarding the right (Ostrom, 2003). Schlager and Ostrom (1992), as cited in Ostrom (2003, pp. 249-250), identify five property rights that are also relevant to an MPA's resources and they are defined as follows:

i.   *Access*: the right to enter a defined physical area and enjoy non-subtractive benefits (e.g. hike, canoe, sit in the sun).

ii.   *Withdrawal*: the right to obtain resource units or products of a resource system (e.g. catch fish, divert water).

iii.   *Management*: the right to regulate internal use patterns and transform the resource by making improvements.

iv.   *Exclusion*: the right to determine who will have an access right, and how that right may be transferred.

v.   *Alienation*: the right to sell or lease exclusion, management or withdrawal rights.

For a better understanding of how these property rights are useful to manage access to a MPA's resources, it is important to discuss the positions of property-rights holders as shown in Table 2.3.

	Full owner	Proprietor	Authorized claimant	Authorized user	Authorized entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Management	X	X	X		
Exclusion	X	X			
Alienation	X				

Table 2.3: Classes of property-rights and their holders (Ostrom and Schlager, 1996, as cited in Ostrom, 2003, pp.133)

Table 2.3 presents information on the property-rights systems focusing on five classes of holders where they can be related to the MPA's setting rather than only focusing on accessibility issues. This approach can help in the definition and management of access to the MPA's resources. Ostrom (2003) discussed this table according to the setting of common resources and it is very useful to guide a MPA's management authorities in the classification of the people who have been given access to a park's resources.

A MPA's management would consider most recreational users/tourists of the MPA to be 'authorized entrants'. They have access to enjoy the beauty of the MPA but do not have the right to withdraw the resources of the MPA. An 'authorized user' has access and withdrawal rights e.g. commercial fishers. However, they are bound to the operational rules and regulations devised by the park's management. Local communities living within or near the MPA should be considered as 'authorized claimants' who possess the rights to access and use the resources to

sustain their livelihoods and, at the same time, they are involved in the management of the parks, especially in managing the resources.

In the case of a MPA, proprietors have the same rights as claimants with the addition of the authority to determine who may access and use the park's resources. Typically, proprietors of a MPA will work by following four basic functions of management: 1) planning: define goals and decide how to accomplish the goals; 2) organising: develop boundary rules e.g. no-take areas, establish rules to give withdrawal rights, and allocate human, financial and other resources to achieve plans; 3) leading: become a leader, especially in collaborative management; and 4) controlling: monitor conformance and use penalties for those who act against the rules (Ostrom, 2003; Worboys et al., 2005). However, as proprietors, MPA management authorities do not have the rights of alienation which means they do not have rights to sell or lease the exclusion, management and withdrawal rights because only the full owner can have those rights. The national or state government or private corporations often possess full ownership of the MPA. Moreover, full owners of a MPA have the responsibility to ensure the well-being of others that also contribute to the well-being of the MPA. Full owners must also provide balanced power sharing and become facilitators rather than controllers in the management structure.

Although the bundles of property rights discussed above seem more complex than simply government or private property (Ostrom, 2003), practically, they give better directions and clearer definitions, especially in terms of accessibility issues to a MPA' resources that are often the main problem of managing MPA. One of common major problems in a MPA is that it simply recognized the government or private ownership of the MPA and management was imposed based on their perspectives whereas, in reality, stakeholder involvement is not as simple as involving only government or corporate entities. Problems such as equality in terms of rights

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allocation, conflicts between users, and rules violation could be managed through establishment of a strong and stable institution that undertakes a balanced approach in recognizing property rights and their holders.

2.3 Marine park communities in context

The concepts of a MPA and the challenges to manage such area have been discussed. A SL approach will be used as a framework to link MPA, institutions and ecotourism in order to improve and sustain the livelihoods of a community. A community in the context of this study refers to the native people who live in a marine protected area or marine park. It is of great importance to understand the historical, socio-cultural, and socio-economic factors that shape the livelihoods of the communities being studied. In this chapter, discussion will be focus on the subject of the study, which is the community in a protected area (PA). It is necessary to understand this subject at this point because it is crucial to the approach and methodology used in undertaking this study and that will be further discussed in next chapter.

2.3.1 What makes community?

Firstly and generally, one may ask (i) What is a community? Consequently, (ii), What is community development? Theoretically, the concept of community has progressed differently in pre-modern and post-modern societies (Blackshaw, 2010). Blackshaw (2010) suggested that during the pre-modern era, community meant completeness with remarkable integration of subject and object, and people and society where the concepts of totality and singularity existed. He later demonstrated that, however, the dynamics of modernity have changed the concept of community, making it unreal, and constructed through human imagination. Pawar (2010) described the complexity of defining community today because of the continual changes of its nature and meaning. According to some sociologists, it is easier to understand community by

knowing what makes a community rather than trying to define it (Pawar, 2010). Among the qualities that constitute a community are the size of population, similarities among people, identity and belonging, relationship and attachment, and local culture. He later suggested that modern developed societies who live in highly urbanized areas may not fit well with the classic meaning of community, thus demonstrating the existence of three different levels of community (Figure 2.1).

Virtual/Imagined community

Community with common background, interests and issues

Geographic-locality-based community
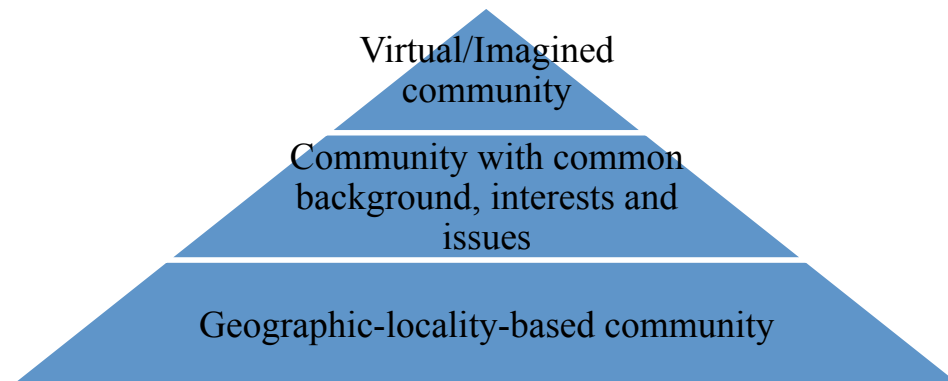
Figure 2.1: Three levels of community (Pawar, 2010)

Pawar suggested that the first level is the most fundamental aspect of community where it is recognized that people and place are the core characters that mutually create a sense of belonging and attachment. At the second level, community is established according to commonalities between people such as religion, ethnicity, language, age group and hobbies. In this era of information technology and communication, the third level has become an increasingly common type of community where interactions and relationships can be developed with or without physical association or appearance (e.g. Facebook community). Similarly, studies in the conservation field have also recognized community in three ways: as a spatial unit (as in the first level), as a social structure (as in the second level), and as a set of shared norms (imagined community) (Agrawal and Gibson, 1999). In this study, community refers to the first spatial unit (geographic-locality-based) and second levels (common background and issues): it

means an issue-based community (i.e. livelihoods of indigenous people) within a geographic location (marine protected area). Thus, in this study, a community is a group of people who live in and are affected by a marine protected area.

However, as Agrawal and Gibson (1999) mentioned in their paper on the role of community in conservation, viewing community as a group of different individuals that work well together is a misconception that can lead to the failure to produce sustainable and equitable policy outcomes. Furthermore, they explained that it is important to recognize the differences within communities in order to understand local politics and to establish good resource management through strategic interactions within possibly multiple levels of politics within the communities. Therefore, in working with a community in a MPA, despite primarily viewing the community based on geography and locality, and according to their homogeneous social structure and their shared norms, it is also important to analyze them according to the differences that may exist within them (heterogeneity).

2.3.2 Communities living in PAs

Communities in and around PAs are often comprised of indigenous people, who can be defined as 'first or original people who have lived in their homeland areas for centuries' (Worboys et al., 2005). They often have unique cultures reflected through spirituality and customary law; have a strong special attachment to the land (or in this study, the sea); and are often well known for their traditional knowledge (Johnston 2006; Zeppel 2006), including ecological and spiritual knowledge. The United Nations and human rights bodies, The International Labour Organization Convention 169, the World Bank and the international legal system define indigenous people through four criteria:

i. They live within (or maintain attachments to) geographically distinct ancestral territories.

ii. They tend to maintain distinct social, economic and political institutions within their territories.

iii. They typically aspire to remain distinct culturally, geographically and institutionally, rather than assimilate fully into national society.

iv. They self-identify as indigenous or tribal.

(Pawar, 2010)

"Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interest and enable their effective participation in the achievement of sustainable development." (United Nations Rio Declaration on Government and Development, Principle 2.2)

The above principle addresses the importance of local people as they relate to environmental protection. Ecotourism, as it also encompasses nature conservation, needs the involvement of local people as their traditional knowledge and wisdom can assist park management to develop more sustainable relationships between people and resources (Worboys et al., 2005). Therefore, policies that require the removal of local people from national parks are no longer relevant in achieving the sustainable use of resources. Moreover, local cultures and environments are often the focus of ecotourism's attraction (Zeppel, 2006) since a cultural landscape has frequently emerged and needs to be protected in the socio-ecological context (Ghimire and Pimbert, 1997). However, in some places where the government is working towards becoming a modern state, traditional or local simply means not modern (not up-to-date)

and authorities fear that recognizing local or traditional knowledge will also encourage backward thinking (Doolitle, 2005).

2.3.3 Issues and problems of communities living in MPA

From the perspective of a park authority, allowing people to stay in a PA also can benefit them in several ways. As mentioned earlier, traditional knowledge of indigenous people is very important for the authority to understand the dynamics of parks. For instance, in many anthropological studies about indigenous knowledge, scholars agree that local people have significant knowledge that can contribute to meaningful participation and, consequently, to enhanced PA management. Such an understanding of the importance of traditional knowledge has also resulted in the declaration of the World Bank in 1996 to commit to espousing the incorporation of traditional knowledge in its global development projects (Dove, 2006). Nevertheless, the traditional ways still need supplementary techniques, which are the modern conservation approaches that foster the long-term sustainability of PAs. An effective partnership between local people and a park authority will help in resolving conflicts and eventually benefit both parties (Nepal, 2002). In terms of equality and justice, effective partnerships also support indigenous empowerment, human rights, and create a transparent and fair environment for decision-making.

On the other hand, several issues or conflicts occur when indigenous people are allowed to stay and continue with their daily life once an area is established as a PA. One of the most widely discussed issues is the property right of indigenous people. Although they may have been allowed to stay in the PA, it may be difficult for them to secure their rights to use or own land or other property such as the sea (Nepal, 2002), and impoverishment occurs when their access to resources is denied. Doolittle (2005) in her study about struggles over land rights in Sabah, Malaysia, demonstrated a very clear relationship between property rights regimes, local action in

terms of livelihood activities, and the ecological context. She shows that a secure right to land contributes to better economic opportunities for the community (e.g. fruit orchards for long-term and higher profit). Insecure rights to a property or land caused negative ecological effects (e.g. swidden gardens for short-term subsistence).

Furthermore, there is evidence that management techniques used by parks to protect wildlife interrupt local agriculture and that definitely affects local livelihoods (West et al., 2006; Cernea and Schmidt-Soltau, 2006). For example, a study in Kakum National Park, Ghana, showed that the park authority seemed to have successfully protected the park, with the increasing number of elephants. However, the growing number of elephants increased the possibilities of crop raiding, reducing the farm harvests and incomes (Appiah-Oppoku, 2011). Similar problems are prevalent in many MPAs and especially affect local people; the conflict limits their livelihood resources and reduces their incomes.

The dynamics and complexity of MPAs also require well-planned strategies and interventions. Understanding marine ecosystems, especially their ecological processes, is crucial prior to making any interventions because it is these processes that maintain ecosystem integrity and productivity. The ecological processes must be safeguarded by controlling activities that disrupt and damage them (Salm and Clark, 1984). The dynamics of marine ecosystems cannot be conserved by simply protecting the environment without acknowledgement of the human social factors that contribute to ecosystem integrity.

Dominated by top-down approaches in some states or countries, inefficient park management often results when the policy and park regulations fail to appreciate or recognize local practices (West et al., 2006). In such situations, indigenous people have shown open hostility towards the PA management and it is difficult for park managers to reconcile with

indigenous people who live in PAs. Again, the modern paradigm in Table 2.1 is seen as an effective, appropriate and practical way of managing modern PAs and reconciling with indigenous people. Nonetheless, there are still issues that prevent park authorities from applying the modern paradigm efficiently. For instance, not every community practices responsible traditions of utilizing natural resources e.g. appropriate tree harvesting and hunting, especially in areas that are strictly protected against exploitative uses. Moreover, protected areas with a high population can be expected to receive greater impacts on natural resources (Phillips, 2003). It is also commonly found that solutions become more complicated when parks managers are not able to handle the problems due to lack of sufficient funding for community development, inability to determine stakeholders which contributes to conflicts between the agencies involved, and insufficient capacity of the parks authority to manage the PA (Nepal, 2002; McNeely 1995).

2.3.4 Livelihoods sustainability as a result of community development

It is important for anybody who wants to pursue studies in livelihoods sustainability to initially understand the concept of community. The concepts of community and the issues of community in protected area have been explained above. Such an understanding will be the basis for proceeding to the next discussion on community development. Generally and widely, community development is defined as a *'participatory people-centred process that involves bringing together, mobilizing or organizing people, keeping them together and enabling them to work together to address their needs and issues so as to facilitate their own, their communities', and their society's comprehensive development'* (Pawar, 2010). Based on the three layers of community that have been explained previously, the definition also depends on understanding the community in each context. Pawar (2010) later indicated that there are four fundamental pillars of community development: human rights, self-reliance, self-determination, and

participation. Moreover, Blackshaw (2010) suggested that community development projects originate from activity focused on benefiting the local community and is concerned with their social values, livelihoods, health, education, crime, and their needs. In order to achieve conditions of independence and security - which refer to human kindness, mutual respect and recognition, tolerance and care, solidarity and social justice - the process of development in a community should involve community participation in effective ways in order to eliminate inequality and oppression and to improve well-being (Blackshaw 2010).

However, in reality, those definitions and characteristics of community development are not easy to put into practice. Thus, community capacity-building has emerged as an aspect of community development (Laverack and Thangphet, 2009). Proponents suggest that in order for a community to improve their lives and well-being, there should be an approach or process to facilitate an increase in their abilities and skills to enable them to make decisions and to take actions themselves (Laverack and Thangphet, 2009). For example, in a study on how ecotourism can supplement local people's livelihoods in PAs, the approach to building community capacity should enable them to learn and educate themselves to get the skills and knowledge required, thereby allowing them to participate in activities that can enhance and diversify their livelihoods (Laverack and Thangphet, 2009). This will then provide another means of gaining livelihood benefits while protecting the indigenous culture and environment.

2.3.5 Community involvement in MPA management

Allowing local people to co-manage a park and to participate in economic opportunities that the park has to offer are usually the best methods that can be used in order to achieve double sustainability - of people's livelihoods and of the natural resources (Cernea and Schmidt-Soltau, 2006). As also concluded in the World Park Congress in 2003, '*if properly understood and*

adopted, co-management can lead towards more effective and transparent sharing of decision-making powers, a more active, conservation-friendly and central role of local communities in protected area management, and a better synergy of the conservation capacities' (as quoted in Cernea and Schmidt-Soltau, 2006).

Ross and Wall (1999) suggested that members of the local community could act as stewards for nature and, through responsible management, protect natural resources. The stewardship approach usually refers to the responsibility of people for sustaining ecosystem integrity and encouraging individuals and the community to engage in natural resources management. Brown and Mitchell (1997) suggested that, when accompanied by respect for natural resources; stewardship generally means people taking care of the earth. They further highlighted that the concept supports many approaches to creating, nurturing, and enabling responsibility in users and owners to manage and protect the land and natural resources. Thus, this approach should also be considered in better managing MPAs, especially those which are inhabited by indigenous communities.

Brown and Mitchell (1997) explained that stewardship draws on a large number of tools, from formal protection to economic and political factors based on education as their foundation, to conserve the natural and cultural values of areas. They further indicated that stewardship can be adaptive, building on traditional means of management to meet changing needs. Stewardship, according to Brown and Mitchell, also includes education for direct resource users and for decision makers in government and the private sector. This approach highlights the compatible objectives of biodiversity conservation and rural economic development, and also acknowledges individual and community connections to nature. It is, thus, an appropriate approach for involving local communities in ecotourism management. Capacity-building programs are

important in order to facilitate a stewardship approach and can be implemented through educational seminars and training to prepare communities with sufficient skills and knowledge to co-manage the resources of MPAs.

2.4 Institutional means as a way forward to manage marine resources

Although the local context is often a main consideration in managing a MPA's resources, external social, physical and institutional environments are very crucial too (Agrawal, 2001). Therefore, collaborative management requires taking a balanced approach between local initiatives and central governance so that it provides opportunities for every stakeholder (local and external) to be involved in the MPA's management. Understanding the characteristics and needs of a MPA and its resources users is crucial in managing the resources over the long term. For instance, if ecotourism development is a compatible economic development opportunity in a MPA, it is important to consider the management structure (Jones and Burgess, 2005), especially in regards to giving tourists access to marine resources. In addition, the dynamics of the marine ecosystem require an institutional arrangement that is responsive and adaptive to changes where there is a possibility of involving external agencies to participate in a MPA's management.

2.4.1 Institutions and institutional theory of managing MPA

Often the issues and problems in a MPA, such as resources exploitation, resources users' conflicts, and ecosystem deterioration, are caused by social, economic, institutional or political failures (Pomeroy and Rivera-Guieb, 2006). Previous analysis on sustainable governance of CPR suggested that institutions play a key role in governing the commons e.g. marine resources (Ostrom, 1990; Agrawal and Gibson, 1999; Agrawal, 2002; McCay, 2002). Furthermore, Agrawal and Gibson (1999) suggested that a political approach that focuses on both internal and external institutions is more likely to produce better outcomes in community-based natural

resource management. This is also supported by recent work on causal effects in long term development by scholars in economics and political science as they agreed that institutions are 'a primary factor' that controls and influences economic growth (Green and Moser, 2013). Similarly, as this study focuses on livelihoods to comprehend the economic and development context of community in a MPA, an institutional analysis is undertaken to understand the relationship of institutions and the livelihoods outcomes.

Theoretically, 'effective and good' institutions will determine the sustainability of resource management (Agrawal and Gibson, 1999). In practice, the question of what makes 'effective and good' institution is variable since the issues of common resources differ from one local contextual factor to another. The regimes of successful institutions in one place may seem complicated to work in the other. For example, institutional arrangements differ in protected and unprotected area. Moreover, institutional arrangements in a protected area with a community living within it and without a community living within it will be differed in terms of historical, cultural, and social context that will shape the institutions especially when customary rights/ laws are recognized in managing the protected area. This is the case of Tun Sakaran Marine Park in Sabah, Malaysia, where the marine park recognized the customary rights of the natives. Therefore, this review of institutional perspectives will discuss what makes an efficient institution and how the theoretical perspective on institutions can help in arranging better management of MPAs generally.

Understanding institutions requires an appreciation of what constitutes an institution and what caused institution to emerge in our society. Generally, institutions are defined as 'sets of accepted rules (procedures, practices, laws, customs) in a society that control and restrict human

interaction and behaviour' (North, 1990; Agrawal and Gibson, 1999). From this general definition, some important elements of institutions can be inferred:

1. An institution is a **structural feature of a society or politically organized unit**. It provides structure to reduce uncertainty and shape human interaction. This distinguishes it from unpredictable processes where human actions not follow strict rules resulting in uncertain political interactions among unequally or inadequately appointed members (North, 1990; Agrawal and Gibson, 1999).

2. An institution **affects individual behavior** and it is **influenced by the actions of individuals** that can cause institutional change. Therefore, an **institution is subject to institutional change** especially when the goals, norms or values, and power are not equally shared among the actors within the institution (North, 1990).

In natural resources management and policymaking, institutions that enable power, as stated by Searle (2005), are more likely to manage resources successfully especially where equity and sustainability are concerned. Therefore, when analyzing an institution it is necessary to determine the opportunities provided by the institution that induced the development of an organization in which partnerships should be built on trust and shared goals. Moreover, how institutions are subject to changes and by who are crucial to understanding the arrangements for MPA management. Essentially, institutions, as defined above, determine opportunities in a society through the rules they impose, and organizations are developed to grab those opportunities. When an organization evolves, it will likely try to alter the institutional arrangements. (North, 1990).

Now, this review will discuss how the symbiotic relationships between institutions and organizations influence institutional change and determine the efficiency of institutions from an

economic perspective in the context of the social sciences in general. Alchian's (1950) evolutionary hypothesis suggested that a competitive economic environment would result in the removal of impotent institutions and reward those that can help in solving problems (in North, 1990, pp. 7). However, there are still many cases, especially in developing countries, where stagnant or poor economic performances cannot be reformed although there are competitive pressures that should lead to the reform of the related institutions. North (1990) successfully discussed the differences between institutions and organizations and their symbiotic relationships in contexts that respond to the previous situation and lead to institutional change (Figure 2.2). The author studied the economic history of the United State of America and the economies of Third World countries to find forms of institutional change that should lead to the establishment of efficient institution. Based on Figure 2.2, first he suggested that efficient institutions induce the development of organizations by providing structural incentives for those organizations to become involved in productive activities. Thus, the organizations' activities result in increasing productivity, essentially supported by the demand for educational investments. As the organizations evolve, actors in the organizations perceive that they could do better if the existing framework is altered. This leads to institutional change to assure that the institutions will be more stable and able to persistently reinforce the incentive structures that encourage productivity. On the other hand, inefficient institutions favor redistributive rather than productive activities that result in monopoly (rather than a competitive environment) that restricts opportunities and impedes investment in education. Why are inefficient institutions sustained, especially in many poor and developing countries? Ironically, inefficient institutions become more 'efficient' when society becomes less productive and when the basic structure they provide to organizations make it impossible for them to be productive.

INSTITUTIONS

Set of rules and, constraints that guide human interaction creating power relationships.

Determine opportunities

Provide incentives structure

Change institutions as they evolve (**feedback processes**)

ORGANIZATIONS

Include economic bodies, political bodies, social bodies, and educational bodies
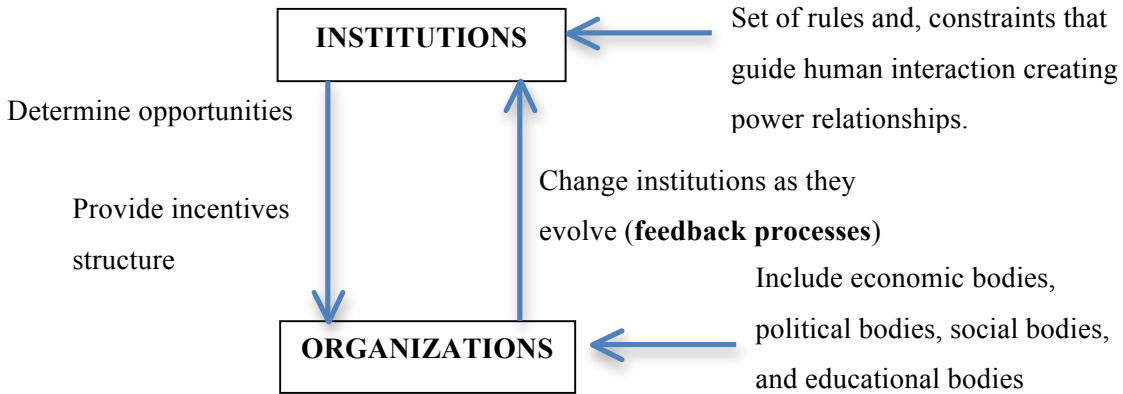
Figure 2.2: Symbiotic relationship between institutions and organizations

In relation to institutions for MPA governance, Jones et al. (2013) highlighted a number of different incentives (Table 2.4) that might be be applied to support marine conservation and sustainable resource management. Such incentives, if implemented, would ultimately influence the direction of governance and MPA management. It is essential to explore how the incentives provide opportunities for people/organizations to change how they act and affect institutions, especially those related to managing common pool resources. It is important to acknowledge that a MPA designation is not a once-and-for-all arrangement (Jentoft et al., 2007). Based on North's (1990) theory of efficient institutions discussed earlier, institutions for managing MPA will likely to become more efficient when they can provide these kinds of incentive structures that eventually create better organizations for managing MPAs. They will also likely influence change in institutional arrangements in order to improve MPA governance. Consequently, this study requires analysis of people's situations that lead to their behaviors and influence how they respond towards the institutions of governance of marine resources. Such an emphasis on situations leads to more social, cultural and historical perspectives on the nature and contexts of institutions that impinge upon marine protected areas.

Incentive Category	Examples of incentives
1. Economic	• Promoting economically and ecologically sustainable resource use, through spill-over effects and enhancing direct and indirect use values from resources • Green marketing of products and services from the MPA • Measures to reduce the 'leakage' of the economic benefits from the MPA away from local people • Providing economic compensation for restricted users for profits foregone • Allocation or reinforcement of community/user property rights • Promoting alternative livelihoods • Improvements in local infrastructure and living standards
2. Interpretative	• Public communication, education and awareness raising on the importance/vulnerability of marine ecosystems and the benefits of the MPA, e.g. through newsletters, web sites, education programs, media campaigns • Promoting recognition of the potential benefits from well-managed MPAs, e.g. spillover to surrounding fisheries, enhanced resilience, ecosystem services • Promoting recognition of MPA regulations and restrictions, including boundaries
3. Knowledge	• Integration of local/traditional/indigenous knowledge in MPA decision-making • Maximizing scientific knowledge to guide/inform MPA decision-making and monitoring/evaluation • Promoting mutual respect and collective learning between different knowledge owners, e.g. scientists and local resource users
4. Legal	• International-regional-national-local regulatory obligations that require effective MPA conservation, including the potential for top-down interventions • Clarity and consistency in defining the legal objectives of MPAs, general and zonal restrictions, jurisdictional boundaries, and roles/ responsibilities of different authorities and organizations • Legal provisions to ensure public rights and transparency in MPA management • Legal or other official basis for cross-sectoral/cross-jurisdictional restrictions to support the achievement of MPA objectives • Scope for flexibility — adaptive management and local discretionary action, maintaining building on and working through local customary institutions, provided that this does not undermine the fulfillment of conservation objectives
Participative	• Participative governance structures and processes such as user

	- committees, public consultations, participative GIS planning, etc., including training to support such processes - Participative enforcement, e.g. peer enforcement, community rangers and wardens - Building trust/social capital between different actors - Transparent participation and decision-making processes - Clear rules on the means and degree of participation from different groups, and the unbiased representation of all user groups in participation processes - Bringing in 'neutral' facilitators to facilitate participative processes

Table 2.4: Incentives used in the MPA governance analysis (Jones et al., 2013)

2.5 Governance approaches of MPAs as a result of institutional arrangements

According to Jones et al. (2013), rather than relying on particular incentives and institutions, it is significant to acknowledge the diversity of ecosystems and of institutions that govern MPAs. There is considerable empirical evidence that documents various institutional arrangements that exist or have existed to create and maintain rules for the management of marine resources that eventually influence governance structures (Jones and Burgess, 2005; Christie and White, 2007; Cinner and Aswani, 2007; Yagi et al., 2010; Jones et al., 2013). This section will briefly review governance approaches to the management of MPAs and later review the potential importance of co-management structures in managing MPAs.

Top-down management approach

Centralized management or a top-down management regime is the most common governance approach in MPAs, especially in developing countries (Christie and White, 2007). In many such places, historically, colonial governments often espoused a centralized governance system rather than recognizing decentralized, traditional indigenous resource management systems as adaptive responses that evolved over time (Abakerli, 2001; Christie and White, 2007). Although government agencies promoted compensation schemes and alternative livelihoods strategies to

reduce people's dependency on marine resources, often these were provided without being sensitive to the localized impacts of MPAs due to inadequate socio-economic evaluations of changes that often resulted in livelihoods depression (Abakerli, 2001; Christie and White, 2007). Nonetheless, there are also successful cases of efficient top-down approaches achieved through long-term institutional support that provide incentives, such as comprehensive consultative participation whereby decision- and policy- making processes occur but remain in the government's control e.g. The Great Barrier Reef Marine Park, Australia and in many MPAs in Japan (Christie and White, 2007; Yagi et al., 2010). However, as many MPAs involve indigenous communities and associated traditional customary practices in resources management, many MPA scholars suggest that participation of communities and stakeholders and power-sharing are means of gaining local acceptance that consequently contribute toward conservation objectives (Cinner and Aswani, 2007; Jentoft et al., 2007; Christie and White, 2007). However, it is important to recognize that communities themselves are complex systems that are commonly comprised of heterogonous units (Carlsson and Berkes, 2005).

A co-management approach in managing MPAs

With limited capacity and resources, government alone or a community alone cannot resolve diverse and complex MPAs issues and problems. Human coordination and cooperation is essential in understanding the emergence of institutions and their roles in human development. Therefore, government, through the marine park authority, needs to work together with the local community. However, other important stakeholders have significant influence on the marine park environment, such as ecotourism investors, NGOs and researchers/universities. They should

be identified and invited to build a partnership in order to determine the ideal approach to cater effectively for everyone's concerns. Partnership building is at the core of co-management.

According to Pinkerton (1992), co-management is defined as '*the exercise of power-sharing in resources management between government agencies and a community or organization of stakeholders'*. A further but similar definition is provided by Borrini-Feyeraband et al. (2007) who defined co-management as '*a situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources'*. Therefore, based on these definitions, co-management is believed to be the means to solve conflicts related to many natural resources management issues (Muñoz-Erickson et al., 2010) as it involves partners working together to address mutual goals. However, these two definitions of co-management are still broad and do not provide direction in determining who should be involved and how to exercise fair power sharing among social actors. Thus, the concept of co-management can mean different things to different people. To simplify matters, this study uses the term collaboration as the key word to understand the basic idea of co-management. The redistribution of power is the result of the co-management process and not a starting point. Based on this perspective, Borrini-Feyeraband et al. (2007) demonstrated that co-management is also known as co-operative, participatory, collaborative, joint, mixed, multi-party or round-table management where all these terms are based on collaborations between two or more actors working together towards mutual benefit. However, the term used for any co-operative management is also subject to local contextual factors. For instance, in Community-based Natural Resources Management (CBNRM), although the community may have the power and rights to make decisions locally and may take actions based on local needs, they still need

assistance and support from the government to enhance their capacity to take responsibility. Thus, CBNRM involves collaboration between community and government.

Co-management refers to collaboration between a community, marine park authority, ecotourism industry, NGOs, researchers/universities and government agencies related to marine and coastal management. Salm and Clark (1984) demonstrated that designating one lead agency with clear objectives, responsibilities and powers, and clear directions in its relationships with other relevant authorities and stakeholders, could create a significant means of building institutional arrangements in MPAs. However, to establish a single agency (e.g. department of national parks and protected areas) with power, motivation and sufficient human, technical and financial resources, is a challenging task. Hiring more personnel into the park management team to address issues and problems in a MPA is not always the best solution. Given the dynamic factors of marine ecosystems and the issues that have been discussed previously, the vital factor to improve marine governance is to build partnerships to facilitate cooperation, collaboration, and communication (Davis, 2004). Therefore, co-management of a MPA is suggested to be the mechanism with the most potential to resolve the problems and issues that have been discussed.

Cohen and Steenbergen (2015) highlighted that economic, religious, political and traditional institutions influence co-management practices in the governance of MPAs. For instance, a study on coastal communities throughout the Coral Triangle region demonstrated that traditional customary institutions influence the way marine resources are used and governed. The authors highlighted the role of traditional resource management in defining the limits and rules for access and closures, and the desire of indigenous communities to uphold customary rights in co-management practices. However, as the pressures on resources have become more intense and diverse, co-management scholars have suggested that customary institutions are required to

develop to incorporate scientific knowledge and to integrate with contemporary governance institutions to improve conservation or sustainability outcomes (Cinner and Aswani, 2007). Given the diversity of institutions and the people that might be involved in co-management, it is important to acknowledge that co-management is not a fixed state solution to MPA management but an ongoing problem-solving process for organizational development for managing MPA (Carlsson and Berkes, 2005).

Jones and Burgess (2005) provided a critique of co-management, suggesting that precautions should be considered in order to establish a balanced approach towards MPA governance. Firstly, they argued that a participatory and co-management approach would be a risky initiative if a top-level agency imposes goals and institutions on other relevant authorities and stakeholders, and assumes a controller role by imposing a management structure from the top rather than facilitating bottom-up development. Such acts can produce local resistance and difficulties in efficiently and meaningfully involving marine resources users. This will result in the deterioration of the marine resource system, especially when relevant authorities and stakeholders do not have the capacity to manage the MPA, even through a well-meaning co-management approach, because of the imposition of a regime by central government that undermines local governance institutions.

Secondly, on the other hand, Jones and Burgess (2005) argued a contrary perspective that co-management may risk parochialism in the context of local initiatives versus central governance. Salm and Clark (1984) suggested that it is accepted that local planning and management can be more responsive to local needs and changing environments, but local views of conservation are not likely to be as broadly based as the regional or global perspective. Furthermore, they demonstrated that local institutions may promote resources exploitation and

adopt an economic approach which challenges conservation objectives (Salm and Clark,1984; Jones and Burgess, 2005). For instance, Jones and Burgess (2005) provided examples from the Philippines where the most successful community-based conservation projects in a mangrove area failed to reflect the conservation objectives as natural mangroves were gradually replaced with mangrove plantations in order to fulfill the need for local resource exploitation. However, the situation should not be totally blamed on the local institutions themselves. Financial resources and expertise are commonly the main constraints for local agencies to work on conservation projects efficiently and effectively. Another example is from Zambian fishery co-management, where the study by Annear (2009) demonstrated that the misuse and misunderstanding of co-management led the local community to invade a restricted fish-breeding area because co-management empowered local traditional authority, allowing them to execute their power and rights even when there was misappropriation of resources. Such events provide a strong reason to establish a partnership based on equal power sharing where nobody is more powerful than anybody else, especially during the design and planning stage of the management scheme. During the implementation of the scheme, somebody should be responsible to monitor and take necessary action in the case of non-conformance.

A major challenge for co-management is the relationships between different levels of governance with different objectives. However, if power sharing at different levels is distributed equally, so that different structures and approaches to managing MPA can be merged to achieve balance, then effective partnership will result in successful co-management. In the case where there are communities living within or around a MPA, institutional arrangements must given priority to the effective participation and involvement of the communities within the institution. Successful MPA institutions are those that are sustained over time, limit use to protect resources

and, at the same time, have the quality to produce fair outcomes, socially, economically and environmentally (Agrawal, 2002).

2.5.1 The integration of traditional customary institutions in to co-management practices

Understanding the situations of people and how property rights and institutions are influenced by social, cultural and historical situations will lead to comprehension of how people connect with marine resources institution. McCay (2002) supported this in his discussion of 'the emergence of institutions for the common' that emphasizes individual rational choice in particular situations that are placed firmly in the context of history, political dynamics, social structure, culture and ecology. As rules, laws and governance are commonly recognized as major institutions that shape human behaviour, McCay (2002) further acknowledged that institutions for the commons, from the perspectives of social scientists, should also include new and changed patterns of behavior, norms and values.

In Sabah, Malaysia, native customary rights (NCR) are a significant social, cultural, historical and political factor to be considered in understanding their influence on community involvement in shaping institutions that eventually result in a community's well-being. Native rights to land were introduced in Sabah during the colonial era, 1885-1913. It was only during the second governorship (1889) of Charles Creagh that the native rights to land were implemented seriously. However, native claims had to wait until the introduction of Land Laws in 1913 that established natives with state-recognized title (Doolitle, 2003). The objective was to protect native rights to land and to protect them from increasing foreign land concessions during that colonial era.

Under Malaysian law, native title has been described as a *sui generis*, i.e. it is based in statute, common law, and native laws and customs. In order to determine the nature of the right,

judiciaries must refer to all the bodies of laws, to give practical importance to what the courts have called a 'complementary right' (Phoa, 2009). At present, NCR is a right given to the natives of Sabah that have been living and working on public land for their livelihoods for three consecutive years and is subject to section 65, 13-16 and 88 of the Land Ordinance (Sabah Cap 68).[2]

2.6 The role of ecotourism in sustainable livelihoods: Definitions and discourse

The growing interest in tourism that is environmentally responsible, socially and culturally sensitive, and economically viable is playing a significant role in the emergence of such tourism philosophies as ecotourism, pro-poor tourism, community-based tourism, responsible tourism and sustainable tourism (Simpson, 2009). Consequently, ecotourism has been widely espoused by practitioners and academics as an ideal form of tourism that can be applied in protected areas as it should possess a dominant nature-based element, environmental and socio-cultural sustainability requirements, economic or financial viability, learning and education components (Wearing and Neil, 1999; Diamantis, 1999; Weaver, 2008), and is prescribed to provide high quality tourism experiences (Ross and Wall, 1999).

Many researchers have elaborated ecotourism's definition by demonstrating certain aspect of it (e.g. nature-based, socially and culturally responsible, improve economic benefits etc.). The selected definitions of ecotourism listed in the table below are intended to illustrate the significance of ecotourism, especially in protected areas, and its relevance to the local communities' development.

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[1]Section 65. "Customary tenure" means lawful possession of land by natives either by continuous occupation or cultivation for three or more consecutive years or by title under this Part or under the Poll Tax Ordinance, or Part IV of the Land Ordinance, 1913.

Ecotourism definitions
Honey (1999, p.25) meticulously defines ecotourism as 'travel to fragile, pristine, and usually protected areas that strives to be low impact and (usually) small scale. It helps educate the traveler; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; and fosters support for different cultures and for human rights'.
The IUCN Commission on National Parks and Protected Areas defines ecotourism as "environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and accompanying cultural features - both present and past) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations (Ceballos-Lascurain, 1993a).
Goodwin (1996) viewed ecotourism as low-impact nature tourism which contributes to the maintenance of species and habitats either directly through a contribution to conservation and/or indirectly by providing revenue to the local community sufficient for local people and, therefore, enabling them to protect their wildlife heritage area as a source of income.
Ziffer (1989) highlighted ecotourism as a form of tourism inspired primarily by the natural history of an area, including its indigenous culture. The ecotourist visits relatively undeveloped areas in the spirit of appreciation, participation, and sensitivity. The ecotourist practices a non-consumptive use of wildlife and natural resources and contributes to the visited area through labor or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents.

Table 2.5: Selected ecotourism definitions from related to ecotourism development

However, a firm definition of ecotourism that is unanimously agreed upon has yet to be established although it has been more than three decades since the term emerged. Therefore, the

effort to establish an effective programme based on a multi-faceted conservation and development approach (Ziffer, 1989) and to assess ecotourism achievements, strengths, and weaknesses (Ross and Wall, 1999) is sometimes hard to accomplish. In response to different ways of defining ecotourism, Ziffer (1989) demonstrated that the reason why ecotourism is hard to define and to implement is because of the attempt not only to describe various functions and purpose of ecotourism activity, but also to chart a philosophy whilst adopting a development model (as cited in Ceballos-Lascurain, 1996; Diamantis, 1999).

In spite of the ongoing debate about a widely accepted definition of ecotourism, Weinberg et al. (2002) clearly stated that we no longer need to argue or question what it is and how ecotourism works, as we have plenty of cases of how it is working. The important question now is: Can ecotourism activities be sustained ecologically and socially? Two successful ecotourism case studies - Monteverde, Costa Rica and Kaikoura, New Zealand - were presented to support the argument and show that many problems related to ecotourism are fixable if the political system is capable of improving the capacity of all related stakeholders (Weinberg et al., 2002). Hence, the institutional environment plays an important part, especially in policy setting regarding ecotourism in PAs.

Therefore, this study will define ecotourism as "**an activity that involves travel to natural areas, and strives to be low impact. It helps to build environmental awareness through education, which contributes to nature conservation and benefits the economic well-being and empowerment of local communities. Ecotourism is also inspired to minimize social impacts by respecting local cultures and also supports human rights through institutional means (in terms of access to resources and education**)"(adapted from Ceballos-Lascurain, 1993a; Honey, 1999; Weinberg et al., 2002). The foci of ecotourism in this study are

the promotion of marine protected area conservation, and the relationship of community participation in ecotourism and institutions to promote sustainable livelihoods.

2.6.1 The ecological, social, and economic impacts of ecotourism

In developing countries, some communities with land entitlements earn income from natural resource use rights and from renting or leasing land to tourism operators (Zeppel, 2006). However, without proper planning and best practice management, ecotourism can be a threat to the ecosystems in which it occurs (Honey, 1999). On the other hand, if meticulous planning and effective management are practiced, ecotourism, which is always associated with the promotion of conservation and development, will have the potential to solve many problems associated with tourism (Ross and Wall, 1999) and significantly change the operation of conventional mass tourism (Honey, 1999). Jenkins and Wearing (2003) have identified a range of positive and negative economic, environmental, social and cultural impacts associated with ecotourism in Australia. They indicated that the impacts from the improper management of ecotourism activities include the alteration and disturbance of wildlife habitats, indirect damage of vegetation, excessive hunting and fishing, erosion, marine impacts, pollution and hydrological changes to ground and surface water quality.

The impacts of ecotourism on the environment should also be viewed from economic and social standpoints because they will not only affect the ecological features that attract tourists but also affect the livelihoods of local people (Jenkins and Wearing, 2003; Tsaur et al., 2006; Tao and Wall, 2009). From an economic perspective, ecotourism can support funding for conservation and protection of the environment. On the other hand, from a social perspective, educational components of ecotourism can also encourage people (both visitors and locals) to have more appreciation of nature and encourage the local community to participate in nature

preservation that will lead to community empowerment (Jenkins and Wearing, 2003; Tsaur et al., 2006; Zanotti and Chernela, 2008). For instance, Lai and Nepal (2006) suggested that the lack of skills and knowledge of local people about ecotourism activities and their consequences can lead to an unreliable capacity to manage ecotourism development. Therefore, educational components of ecotourism, together with a participatory approach that recognizes traditional knowledge and good management and governance are important to ensure the accomplishment of local empowerment (Zanotti and Chernela, 2008). Hence, it is important for this study to focus on how good management and governance can promote ecotourism and vice versa.

2.6.2 Ecotourism as a livelihood strategy

Ecotourism, probably the fastest-growing form of tourism in remote natural areas, provides an economic rationale for proponents of national parks although there are many critiques of its effectiveness in sustaining local people's livelihoods and, at the same time, conserving biodiversity. As referred to the definition of ecotourism in the earlier discussion, proponents of ecotourism often acknowledge the special relationships between indigenous people and natural areas. As the PA management paradigm has shifted, a protected well-managed ecotourism has become increasingly seen as a strategy to achieve cultural, environmental and economic sustainability for indigenous communities, especially in national parks.

However, many anthropologically oriented studies have looked at the potential roles of ecotourism negatively. Indeed, many have argued that ecotourism is only a strategy for conservationists to accomplish their goals (West et al., 2006). From the conservationists' point of view, there are critiques about ecotourism being misrepresented in development projects (e.g. eco-resorts which do not comply with ecotourism criteria). Such misrepresentations have ultimately led to environmental degradation and affected the genuineness of ecotourism. Despite

these critiques about the existence of ecotourism in parks, many studies have shown that ecotourism has raised interest in tourism that is concerned with the environment, communities, and sustainability (Stronza and Gordillo, 2008; Simpson, 2009; Camargo et al., 2007; Fuller et al., 2007). One of important roles of ecotourism is that it can assist in building community capacity and, thereby, to enhance benefits for local communities (Aref et al., 2009; Laverack and Thangphet, 2009; Simpson, 2009).

Based on Tao and Wall's (2009) studies on tourism as a livelihood strategy, development of local people can occur through livelihood diversification e.g. tourism introduced as an additional source of livelihoods. Ecotourism can provide opportunities for local people in PAs to participate in new livelihood activities, which involve indigenous people either utilizing natural resources and traditional lands (with sustainable use of resources) or selling access to their unique way of life to gain income from ecotourism. This will involve nature and cultural conservation and, at the same time, improve livelihoods (Zeppel, 2006). Furthermore, appropriate training and education are important for local people to take advantage of such opportunities. Thus, capacity building is commonly required to enable them to get involved in ecotourism activities or management. Nepal (2002) indicated that a good example of partnership between a park authority and local people can be found in Canada, where the effective involvement of local people in some national parks has led them to have more options to decide for themselves in terms of legal matters, economic opportunities, and social and cultural justice. However, according to Laverack and Thangphet (2009), there is still lack of successful evidence of practical approaches in different cultural contexts.

One of the two fundamental inequalities of local people as victims of PA establishment is that between local groups, as some locals may be seen as being more local than others (West et

al., 2006) and some tribes claim to have more rights than others. When traditional sources of livelihoods are reduced, they will compete against each other, rich and poor, between castes or ethnic groups, to get whatever benefits that the PA can generate. Intra- and inter-tribal relations are altered eventually affecting local community dynamics (West et al., 2006). When ecotourism is used to diversify the sources of livelihoods of people in PAs, it is expected to contribute towards the solution of such conflicts. However, without local empowerment and with a lack of capacity to handle ecotourism activities, more conflicts may occur, including inequitable distribution of benefits, not only between the park authority and local people, but also among local people themselves.

2.6.3 Ecotourism as a tool for conservation

Examples of conservation and community benefits of ecotourism can be seen in some community-based ecotourism projects in East Africa. Zeppel (2006) demonstrated that land titles granted since the 1970s have enabled the Maasai and other indigenous groups in Kenya and Tanzania to form joint ventures with private tourism operators. Tribal lands are leased for tented camps, Eco lodges and game-viewing activities. Further, she highlighted that the leasing conditions for conservation and ecotourism facilities provide Maasai groups with alternatives for settlement, grazing, hunting wildlife, and other extractive activities and, at the same time, indigenous groups earn income from tourism lease fees, bed-night levies, entry fees, employment as service staff and guides, handicraft sales and other activities.

Lai and Nepal (2006,) in their study of ecotourism in a protected area in Taiwan, adopted four dimensions of ecotourism development, which encompass guidelines, and principles that have to be followed in order to ensure sustainable community development through ecotourism. The four dimensions were identified from the writings of various prominent tourism scholars:

socially appropriate tourism (Cooke, 1982); environmentally sustainable tourism (Wight, 1994); ecotourism (Honey, 1999; Wallace, 1996); and community-based ecotourism (Sproule and Suhandi, 1998). The four dimensions are conservation of natural resources, preservation of cultural traditions, sustainable community development, and local participation in ecotourism planning and management (Table 2.6).

Dimension 1: Conservation of natural resources

- Ecotourism development should contribute to the conservation of natural ecosystems (Honey, 1999; Wallace, 1996).
- Ecotourism development should encourage local communities to build partnerships for protected area conservation (Wight, 1994).
- Ecotourism development should provide education programs for local communities to learn and raise their awareness of their natural heritage (Honey, 1999; Wallace, 1996; Wight, 1994).

Dimension 2: Preservation of cultural tradition

- Ecotourism development should ensure that the economic benefits to local people should complement rather than overwhelm or replace traditional practices (Cooke, 1982; Wallace, 1996).
- Ecotourism development should provide education programs for local communities to learn and raise their awareness of their cultural heritage (Wight, 1994)

Dimension 3: Sustainable community development

- Ecotourism development should be operated in an environmentally and socially responsible manner so that negative environmental and socio-cultural impacts can be minimized. (Cooke, 1982; Honey, 1999; Wallace, 1996; Wight, 1994).
- Ecotourism development should provide long-term environmental, socio-cultural, and economic benefits to the protected area as well as the nearby communities (Honey, 1999; Wight, 1994).

Dimension 4: Participation in ecotourism planning and management

- The promotion of local attractions should be subject to residents' endorsement (Cooke, 1982; Wallace, 1996).
- Ecotourism development should promote communication and interaction between all the interested groups including local residents, tourists, protected area managers, government, NGOs, tour operators, and scientists, both before and during operations (Sproule & Suhandi, 1998; Wight, 1994).
- Ecotourism development should maximize local participation (Cooke, 1982; Sproule & Suhandi, 1998; Wallace, 1996).

Table 2.6: Dimensions of and guidelines for ecotourism development (Lai and Nepal, 2006)

If the guidelines and principles listed above are practiced in developing ecotourism, the simultaneous conservation of natural resources and enhanced community development can occur (Lai and Nepal, 2006). In particular, all four of the dimensions of ecotourism development mentioned above involve a wide range of stakeholders and multiple sectors. So, conservation,

community development, cultural, and participation dimensions espoused in these ecotourism guidelines need an integrated approach in order to assess the impacts of ecotourism on community development (Lai and Nepal, 2006; Simpson, 2009) and institutional arrangements for co-management.

Based on Table 2.6, it is also agreed that ecotourism can succeed when the resources on which it depends are well managed and well preserved (Boo, 1990; Ceballos-Lascurain, 1996; Ross and Wall, 1999; Jenkins and Wearing, 2003). Therefore, ecotourism proponents commonly put conservation of natural resources as their main objective in the hope that it will encourage local people to protect their natural resources for the purpose of ecotourism which will then bring economic benefits to them. Many conservation organizations e.g. the World Conservation Union (IUCN), the World Wildlife Fund (WWF), Marine Conservation Society (MCS), Conservation International (CI) and other conservation organizations, view ecotourism as one approach to conservation (Honey 1999). In addition, the potential employment opportunities in natural areas that result from a new paradigm shift in PA management also contribute to the enhancement of ecotourism opportunities (Diamantis, 1999). However, Jenkins and Wearing (2003) indicate that, as more ecotourism destinations develop, natural resources use will increase in order to meet the greater demand, thus leading to potential conflicts between protection of the environment and economic development. Further, they highlighted that resource managers i.e. park managers, may face significant challenges in developing sustainable ecotourism in PAs. Therefore, it is crucial to establish an effective and strong institutional arrangement that represents all stakeholders equally in managing resources in PAs in order to reconcile environmental, social, and economic conflicts.

2.6.4 Community empowerment through ecotourism

Many researchers have demonstrated that ecotourism - as a form of nature-based tourism with a community-based approach - if properly planned and carefully managed, can be a tool or strategy to reconcile uneasy parks - indigenous people relationships (McNeely, 1995; Nepal, 2000; Diamantis, 2004). In the context of community development, a community-based approach in ecotourism, where the local community plays an important role in management and is involved in ecotourism activities and the majority of the profits remain within the community, can be an effective way to empower the community and to produce desirable socio-economic consequences (Weaver, 2008). Therefore, capacity building gives significant emphasis to local communities to help them to develop skills and abilities to manage ecotourism in their areas (Laverack and Thangphet, 2009). For instance, Fuller et al. (2007) indicated that small enterprises do exist in remote regions and attract the interest of indigenous people, who are often the local inhabitants of such areas, to participate in ecotourism activities where they have control over such activities. Although participatory approaches that benefit local people economically, politically, and socially have been used and are showing some success around the world, practically, community-based ecotourism with participation from local people is still in the early stages of development in some South-east Asia countries (Zeppel 2006). In Thailand and Malaysia, the governments have recognized community-based ecotourism as a means to raise the incomes of rural people and, at the same time, to preserving the countries' pristine natural beauty. However, there are few stakeholders, including communities, which have experience in managing ecotourism. Thus, community capacity building is very important and is required to encourage community empowerment.

2.7 Introduction of a Sustainable Livelihoods (SL) Approach to community development

A sustainable livelihoods approach is one of the community development approaches that has been adopted especially to reduce poverty by putting people and their needs as the priority for development (DFID, 1999). Livelihood thinking requires initial understanding of what a livelihood is, and in what shape, form or state that livelihood is sustainable?' To begin with, this study cites the most well-known and most-cited definition of sustainable livelihoods by Chambers and Conway (1992, pp. 6) that stated: '*A livelihood comprises the capabilities, assets (store, resources, claim and access) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generation.*' The approach depends upon the interconnections of the various concepts that are stated in the definition. Furthermore, the core principles of SL itself make livelihoods enhance the likelihood of incorporating a realistic understanding of poverty and livelihoods issues into development thinking. Carney (2003) suggested that the principles can be divided into *normative* (what we should do) and *analytical/operational* (how we think and what we do) groups to give direction to the working of these principles in order to improve the operation of SL (Table 2.6).

Normative	Analytical/Operational
• **People-centred**: focus on what matters to people, and their strengths and differences • **Empowering**: change should result in developing people's capacity to improve livelihoods and to have access to livelihoods resources • **Responsive and participatory**: the people themselves must be the key actors • **Sustainable**: a balance in economic, social environmental and institutional aspects	• **Multi-level and holistic**: micro-level activities determine policy making and macro-level structures and processes strengthen people with efficient governance • **Partnerships**: SL encourages building partnerships between all relevant stakeholders that must be based on mutual goals • **Disaggregated**: recognize how livelihoods assets, strategies and vulnerabilities differ between groups as well as men and women. Analyses based on class and gender are necessary • **Dynamic**: recognize the dynamic nature of livelihoods systems

Table 2.7: SL principles (Adapted from: Ashley and Carney, 1999; Carney, 2003)

2.7.1 Discussion of the fundamentals of SL approach

Based on Table 2.5, the core concepts of a SL approach are obvious and should not be compromised. Firstly, a focus on people involves an analysis of people's livelihoods to give a clear understanding of their livelihoods, adaptive strategies over time, and to examine the impacts of policies and institutional arrangements upon them (DFID, 1999). The latter is very crucial if people are to be empowered by enabling them to get better access to livelihoods resources (Farrington, 2001). In addition, the livelihood approach initially analyzes people's strengths, leading to significant recognition of people's potential to improve their livelihoods and reduce poverty. Through this recognition, community capacity building should be encouraged to prepare people by strengthening their ability to derive benefits from development projects and to manage livelihoods resources. In addition, consideration of heterogeneity within a community is very important because differences affect access to resources, livelihoods strategies, vulnerabilities and local institutions. Thus, disaggregated analyses from households/community

interviews should be undertaken (probably through a responsive and participatory approach) (DFID, 1999; Carney, 2003).

Secondly, diversity is a key word in a SL approach, highlighting the great diversity and complex livelihoods strategies of poor people (Simpson, 2007; Scoones, 2009). Therefore, livelihoods thinking embraces an holistic view of development issues ranging from a multi-sectoral approach to solving diverse and complex livelihoods problems (e.g. through partnerships), recognition of various influences on people and their collective effects on livelihoods, and recognition of various livelihoods strategies and outcomes (DFID, 1999; Simpson, 2007). Furthermore, Scoones (2009) argued that a livelihoods approach is non-sectoral and not associated with any particular discipline, challenging a single-sector approach, and that it is intended to bridge the gap between other community development approaches and encourage scholars from multiple disciplines to work together.

Thirdly, poor people in most parts of the world heavily depend on natural resources for their livelihoods and these kinds of resources are dynamic. As the contexts of livelihoods systems are dynamic, so should be the approaches to deal with them (DFID, 1999). Dynamism is often associated with resilience and adaptive strategies/management; hence it encourages flexible and pragmatic solutions towards changes and requires long-term commitment (Ashley and Carney, 1999; Carney, 2003). The fact a SL approach strongly emphasizes a dynamic and holistic view as a core attribute suggests SL can incorporate and be integrated with other approaches e.g. an ecosystem-based approach to deal with complex situations especially regarding human interaction with nature. It is not expected to preclude other approaches that might provide positive inputs to accomplish livelihoods sustainability.

Fourthly, the approach urges the creation (if they do not exist) of multi-level institutions connecting micro- and macro-level activities (DFID, 1999). Policies developed at a higher level can be ineffective if they ignore the importance of people's participation in decision-making processes at the local level. There is often limited appreciation of how people can contribute to policy planning and development and this has complicated the adoption of bottom-up approaches. Therefore, the imposition of policies will have more chance of success if they are informed by the actual situation on the ground (where the effectiveness of policies can be seen) and not by the motivation to retain central authority (DFID, 1999; Jones and Burgess, 2005). Consequently, Jones and Burgess (2005) demonstrated that neither higher-level nor local-level institutions can work well by themselves. Thus, collaborative management between local and higher levels should be established so that they inform and support, and not undermine one another. Similarly, Ostrom (1990) and Agrawal (2001) suggested that two important principles of good governance are: 1) decentralization of management towards a balance in power sharing; and 2) right of access to the decision-making process to give local people an active role in planning and development.

Fifthly and lastly, as the approach is working towards the creation of sustainable livelihoods, the notion of sustainability is crucial (DFID, 1999). Since the Brundtland Commission report in 1987, sustainable development has been widely adopted, at least in rhetoric, in responses to development issues, emphasizing economic, environmental and social dimensions of change. However, questions regarding what are to be sustained and how to achieve sustainability have drawn many people, regardless of their backgrounds, to debate and interpret sustainable development according to their own terms and understandings (Tao and Wall, 2009). Consequently, there are various perspectives on and understandings of sustainable

development. For instance, Tao and Wall (2009) indicated that sustainable development that emphasizes the reconciliation of issues between environment and economy might overlook other important aspect that also contribute to sustainability, e.g. culture. However, positively, if the differences in the worldviews on sustainable development are linked and used to inform one another, this will help scholars from different background to produce critical discourse on sustainability according to their specialties, thereby addressing the issues and filling in the blanks that discourses on sustainable development have left. For example, the gaps in sustainable development cannot be bridged if the concept is applied to a single sector for many of the issues result from competition between sectors. However, in line with sustainable development thinking, a SL approach provides a more clear focus that is easier to discuss, observe, describe and quantify (Tao and Wall, 2008; Tao and Wall, 2009). Although a SL approach is people-centered, it offers some cross-sectoral linkages to crucial dimensions of sustainable development i.e. economy, environmental, institutional and social aspects, and provides a practical way to address human interaction with nature (socio-ecological context), livelihoods struggles (economic context), and socio-cultural changes.

2.7.2 Sustainable Livelihoods Framework (SLF)

Another advantage of adopting a SL approach is the strengths of the framework that is used to draw in conventional analyses (economic, environmental, social, and institutional) to understand the complexity of livelihoods, the influences on poverty, people`s options regarding sustaining their livelihoods and to identify where interventions can best be made (Figure 2.3) (Baumann, 2000; Farrington, 2001).

An analysis of assets is fundamental to understanding the options that are accessible to households and communities, and to the recognition of the assets that people possess and how

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they change over time. Five capital assets (assets pentagon) are identified in the framework: human, physical, social, natural, and financial. Moreover, social differences are recognized in the analysis of the accessibility to and control over assets. Options are further determined by policies, institutions and processes (such as the role of government and the private sector, institutional and traditional culture, gender etc.) with which people engage (Baumann, 2000). A concurrent analysis of institutional structures and processes at micro- and macro-levels is vital for understanding opportunities and constraints in the wider structural features that might influence livelihoods in a particular place (Scoones, 2009). It is assumed that people pursue a variety of livelihoods outcomes (health, food security, more income etc.).

An analysis of outcomes focuses on achievements, indicators and progress that eventually provide an understanding of what contributes to the well-being of people (Cahn, 2002). Furthermore, it is important to understand the diverse and dynamic livelihoods strategies to identify the best time to intervene. An analysis of livelihoods strategies provides important information on how people negotiate on appropriate processes and structures to implement the strategies. Finally, an analysis of the vulnerability context helps one to understand how people adapt and cope with events that are beyond their control. In the proposed study, vulnerability will be addressed through a focus on the establishment of marine parks and how it influences the overall livelihoods system. In addition, the analysis should examine the role of institutional processes and structures required to handle and reduce vulnerabilities and how the vulnerabilities influence processes and structures.

However, for the purpose of this study, the analysis using SLF will focus on the institutional processes and structures, livelihoods strategies, livelihoods outcomes and their interrelation.
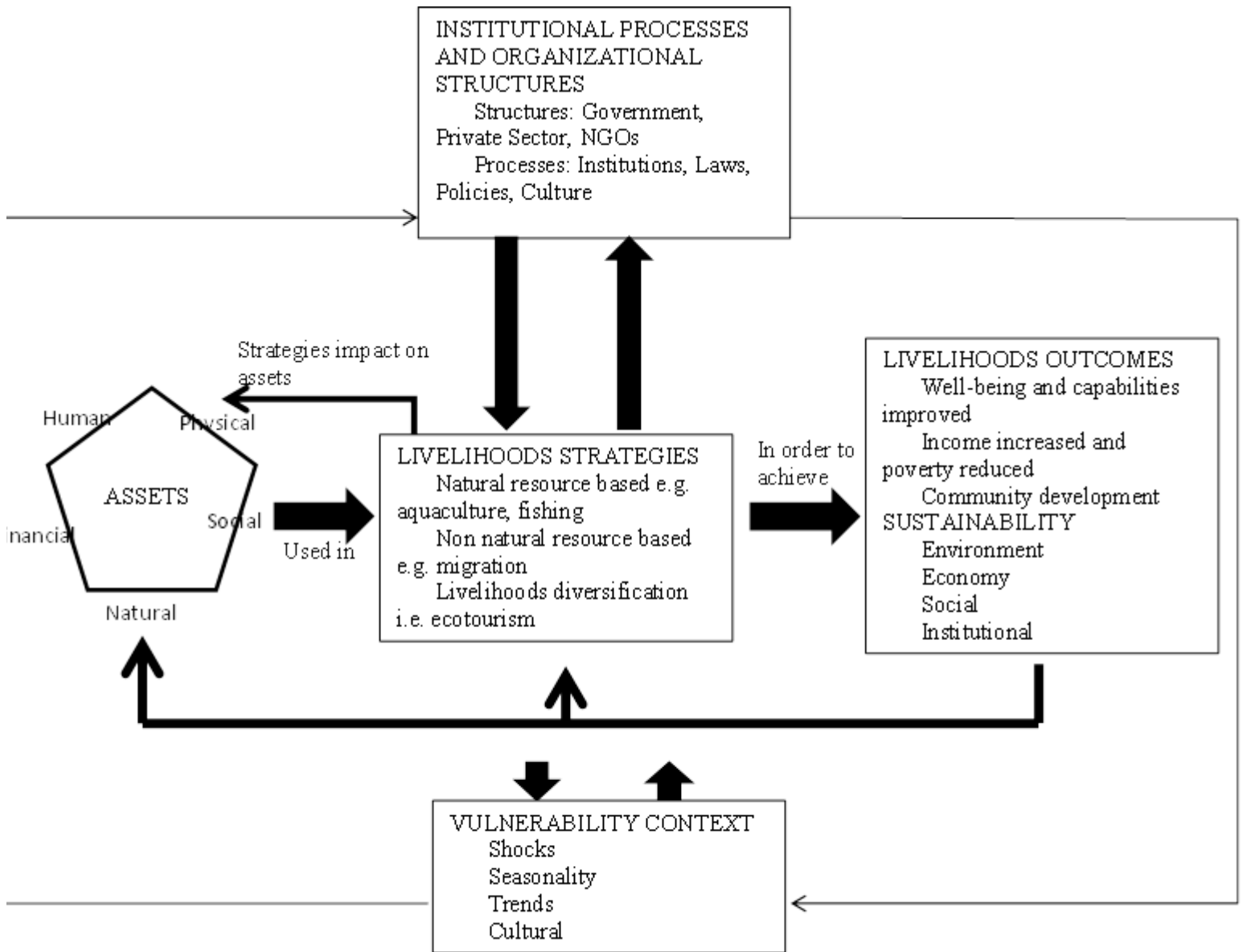
Figure 2.3: Sustainable Livelihoods Framework (SLF) (adapted from Scoones, 1998; Cahn, 2002)

2.8 Chapter summary

The literature reveals that positive outcomes of ecotourism development for indigenous people will most likely happen when indigenous people are directly involved in and control ecotourism activities and their culture serves as the essence of the attraction. Based on the literature, it is appropriate to adopt a SL approach in a marine park context. The process of understanding social, environmental, institutional and economic contexts in relation to enhancing a community's livelihoods through a SL approach can be performed through application of a SLF (Figure 2.3), using analytical tools underpinned by SL principles.

It is also necessary to learn the meaning of ecotourism from the community's perspectives, which is rarely examined directly in the literature. The identification of weaknesses in the concepts of sustainable development and sustainable tourism provides legitimacy for using the sustainable livelihood approach to examine the roles that tourism plays in indigenous people's daily lives, not only because culture is embedded in daily life but also because of the need to identify whether any linkages exist between tourism and other sectors of the economy and how ecotourism can better fit in. Especially in this study, the institutional context in SLF is significant and must be examined in order to analyze the factors that encourage the communities' participation.

Chapter 3
Research Methodology

3.1 Introduction

The researcher espoused a sustainable livelihoods approach to understand the complex livelihood situation involving multiple groups of people living within a gazetted marine park. Some of them have legal entitlement while others have regarded the sea as their home for generations. It is very important to undertake this case study and participatory research not only to involve and empower communities by providing them with a venue to voice their views and concerns, but also to evaluate the institutional structures and processes that eventually affect the livelihoods and the well-being of the communities. Hence this chapter outlines the research approach and how the research was conducted taken in a marine park setting.

3.2 Positionality of the researcher: A personal perspectives

When I read Snider's (2012) thesis on his research on ecotourism and land rights in Kenya in African, I found myself in agreement with him about the attributes of the study area that influenced the design and eventually the outcomes of the research. Moreover, Creswell (2009) suggested that research problems and personal experiences are among the criteria for designing a research approach, influencing the choice of an issue or concern that needs to be understood and shaping the approach that a researcher might use in their research. Personal experiences may influence the choice of approach reflecting personal interest and, particularly in this study, the issues of marginalized people are the focus of attention. Schutz (1970), as cited in Palys and Atchison (2008, pp. 7), mentioned that it is important to adopt a method or an approach not to get credit for its splendid and elegant strategies, nor because it is an easy or quick method but because, in the long term, it is the right thing to do. I will, therefore, explain how both the

research problem and personal experiences influenced my positionality on the research approach that was adopted.

Interest in conducting an in-depth study of ecotourism was aroused when I first visited Sabah, Malaysia, also known as the *'land below the wind'* in 2005. This was a brief study visit taken to Kota Kinabalu City Bird's Sanctuary and the Kinabalu National Park as part of a Master's in Tourism Development course. Coming from Semenanjung, the western part of peninsular Malaysia, Sabah in north Borneo offered a very different setting to me as a young but enthusiastic tourism student. Aware of the great volume of international tourists that reached 2.875 million visitors in 2012, I wondered what this has meant for the native people of Sabah that comprise 48 percent of the 4.5 million total population. The journey from Kota Kinabalu City Centre to Kundasang took about a 2-hour drive due to the hilly road condition and I could clearly see many residents, especially those of Kadazan and Dusun ethnicity, working on their swidden (slash and burn) gardens and vegetables farms around their stilt houses (made of bamboo for the walls and nipah leaves for the roof). I asked, "If tourism is the second largest economic contributor to the state economy, who has benefited from it? How can tourism-related activities diversify and improve the livelihoods of those people who have been declared as Malaysian *bumiputera,* literally means 'the son of the soil'?"[3] If the soil really belongs to them, I surmised that they should always be consulted during the pre- and post- development activities associated with conservation and ecotourism. The NCR was promulgated purposely to give significant advantages to the sons of Sabah's soil. Other questions arose: "What if the soil is

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[3] Articles 153 and 161 of the Malaysia Constitution have been used to promote the 'special rights' of Malays and the natives of Sabah - the 'sons of the soil.' Article 153 of the Constitution speaks of the responsibility of the state ''to safeguard the special position of the Malays and the natives of the states of Sabah and Sarawak.''

gazetted as a national or state park? Is NCR still upheld in a gazetted and protected area?" These questions arose due to the claim that Sabah had gazetted protected areas only to fulfill the desires of international conservationists, but had neglected the well-being of its own people by taking their land and resources without consultation and fair compensation (Doolitle, 2003).

These questions led me to do some background research on Sabah's protected areas and the NCR issues. NCR laws were directed most specifically to the land rights issues of the native people. However, prior to 2004, the NCR was not applicable when the land was gazetted as a protected area. This created hostility on the part of residents when they had to give up their traditional livelihoods without consultation and fair compensation. However, in 2004, the establishment of Tun Sakaran Marine Park (TSMP) recognised the NCR of the native people living within the park, attempting to establish a more positive parks-people relationship within it. However, it also led to the interesting question of how far the NCR will be recognized and upheld in a marine environment for most of the laws are regarding land rights issues.

Studies about native issues regarding NCR are always controversial (Doolitle, 2003). It is often difficult to obtain data either from the government officials or the native people themselves. Although I am not a local Sabahan, in order for me to approach diverse stakeholders, I positioned myself as a fellow Malaysian, who respects local knowledge, is interested in learning about management problems, and is a student with no ties to the management authorities.

In order to get to know the local people not only in TSMP but also in Semporna in general, and their important people, I made a preliminary visit to introduce myself. My status as a family woman with overseas education helped me a lot to gain local trust and support. Bringing my two-year old son and my husband to the study site helped to gain the communities'

acceptance. This was proved when we were kindly greeted at the Bajau Laut villagers that were known for their reluctance to talk to outsiders. My son kept the work easier for me when he could easily get along with the local kids. On the other hand, there were days that my son and I were not able to go to the study site and my research assistant had to go with my husband, and the results of their efforts were very poor. Either they were not welcomed at all or the answers given were unsatisfactory. Some communities, especially the Bajau community who were quite vocal in their opinions, had so much respect for me because of my status as an educated family woman from the Malaysian peninsula who was willing to come to their village and hear their stories.

The trust and support from local communities contributed to building my network with other important people and stakeholders in Semporna. Local people connected me with some important people in Semporna and, importantly, informed me how to approach government officials and especially park official and rangers. This was important especially to obtain information on sensitive issues such as illegal activities in the park, and other issues and problems regarding NCR and legal status. Apparently, all of the park rangers were from Sabah and they were Sabahan native but not necessarily from Bajau, Bajau Laut or Suluk ethnic groups. However, the trust and support that I gained from local communities influenced the trust and acceptance level of the park rangers. In most cases of the survey, park rangers were willing to share their experience and the problems they are facing. The park rangers' interviews contributed a lot of information on managements' problems that would not have been obtained from interviews with higher-level management officials. However, when my research assistants were conducting interviews, they did not wear park uniform and were regarded by informants as ordinary residents of Semporna.

3.3 Overview of TSMP, Semporna, Sabah, Malaysia

Semporna is the gateway to beautiful islands located in the Tawau Division, on the east coast of Sabah (Figure 4.1). It is widely known as an outstanding scuba diving and snorkeling spot. Sipadan Island, located on the southeast coast of Semporna, has been recognized as one of the richest marine habitats in the world and has been rated as one of the top dive destinations in the world (Spadi, 2003; Semporna District Office, 2012; Scuba Travel, 2013). According to WWF-Malaysia, the Semporna reef complex is located within the Coral Triangle[4] region, where the highest number of marine species is found. The many reef types have high levels of biodiversity because of the mix of habitat types and ecosystems (Kassem et al., 2012). Although Semporna has been top ranked in terms of its richness in coral, fish and shrimp taxa within the Coral Triangle, the reefs are degrading (Ho and Kassem, 2009).

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[4] The Coral Triangle is the world's centre of tropical marine life, encompassing around 6 million sq km of ocean across six countries in Asia Pacific – Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste. WWF had initiated a conservation project to safeguard one of the most diverse marine habitats in the world (WWF Malaysia, 2013).
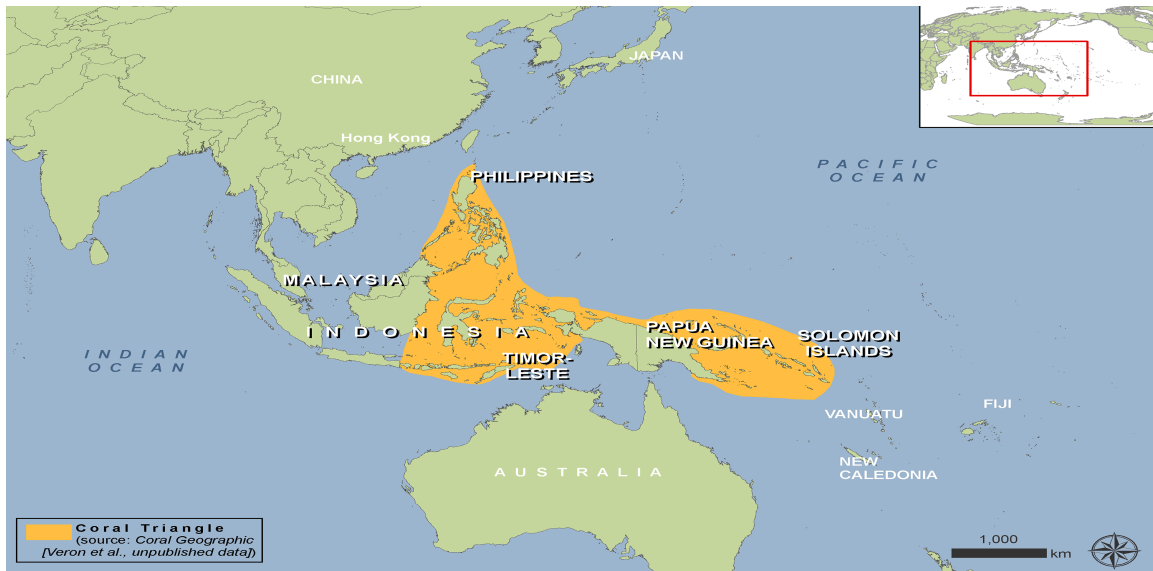
Figure 3.1: Map of the Coral Triangle (in yellow) (Kassem et al., 2012).

The qualities of the environment and the pressures that it is experiencing have led to the establishment of two marine parks: Tun Sakaran Marine Park (TSMP) and Sipadan Island Park (Ho and Kassem, 2009). According to SIP Management Plan (2001), scientists and other researchers have a regular presence on TSMP as the area has become a focus of various projects carried out by local university students and non-governmental organizations since the early 2000s. The plan also described that historically, the conservation work began in 1933 when Bodgaya Island and Boheydulang Island were gazetted as a Forest Reserve and a Bird Sanctuary respectively. Later, in the 1970s, concerns grew concerning the protection and preservation of the reefs, and a proposal to establish the area as a State Park was made in 1977. This caused the official status of the Forest Reserve and the Bird Sanctuary of the two islands, which were within the proposed park area, to be revoked. However, since the proposal failed to meet the local people's needs and concerns, the proposal was deferred on two occasions, in 1977 and in 1992 (SIP Management Plan, 2001). Beginning in 1998, a three-year program was initiated by the Marine Conservation Society (MCS) with collaboration from Sabah Parks. It emphasized

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involvement of stakeholders, especially the local people, and was successful in reconciling the problem that existed in the State Park proposal. Thus, with reference to the classic versus modern paradigms of governing protected areas (Phillip, 2003), it is evident that the MCS and Sabah Parks project achieved their first milestone with the establishment of TSMP by espousing the modern paradigm with a strong focus on the well-being of the local community (SIP Management Plan, 2001).

In June 2004, the project proponents successfully convinced the Sabah state government to establish TSMP officially. It was the only marine protected area in Sabah to include private land and to recognize native customary rights (NCR), especially on matters regarding land (SIDP, 2005). This event was made especially significant by the fact that there were over 2,000 people with different ethnicities living within the marine park. This called for a different and collaborative approach in dealing with park and marine resources management. Co-management was introduced so that people living in the park could continue to be involved fully in the planning processes and could see that they would share in the benefits of implementing the management plan (SIP Management Plan, 2001). However, after eight years of establishment, the co-management plan with the local communities has not been implemented, resulting in an uneasy park-people relationship. For instance, although tourism is conducted on a small scale in TSMP in comparison with the neighboring Sipadan and Mabul islands, the park has yet to charge entrance fees and the local communities are not benefitting from tourism activities that are totally managed by Sabah Park. Ironically, the management plan of TSMP highlighted ecotourism development as an appropriate activity to maximize opportunities for sustainable use and to diversifying communities' livelihoods (SIP Management Plan, 2001) but, as will be discussed later, this has yet to occur.

At this point, the uneasy and unhealthy relations between the park and its people will not be discussing in detail. Rather, an overview of the study area will be provided so as to establish the context of the park and its communities as a background to further understanding of the detailed issues that will be explored later.

3.4 Qualitative and quantitative approaches

A mixed methods approach was adopted to collect and analyze data. Mixed methods were chosen because they will enable crosschecking and triangulation of findings, the complementary analysis of results and the ability to go into deeper aspects of the interdisciplinary process of SL (Simpson, 2007). Moreover, the research involved investigations on the nature of local livelihoods that required the use of a combination of methods. A priority is given to qualitative methods as the research involved an ethnographic case study to observe and to collect data, especially in regards to the issues of institutional structures and processes, the social and cultural attributes of marine communities, livelihoods and native rights issues that are easier to describe through qualitative analysis and more comprehensible through qualitative interpretation. Qualitative methods, particularly in-depth interviews, allow respondents to explain and illustrate their thoughts and feelings in ways that would not be possible with closed questions. When assessing the effects of marine park establishment, particularly the psychological effects, qualitative methods avoid the artificiality of requiring subjects to quantify or categorize their answer into a pre-existing framework, or of having to quantify often complex phenomena. Moreover, the incorporation of participants' observations can greatly help the interview and analysis processes.

In order to understand the social and cultural aspects of people's lives, it is necessary to get beyond the responses to pre-designed questions to get a hint of sensitive issues that could not

be asked easily in the interviews. It was necessary to approach and build social networks among the Bajau, Bajau Laut and Suluk communities, and this facilitated the discussion of events and opinions in more detail, rather than depending solely on answers to highly focused interview questions. Table 3.1 shows the selection of approaches based on the strategies outlined for this study.

	Qualitative approach	Quantitative approach
I used these approaches to:	• Position myself	• Identify variables to study
	• Bring personal values into the study	• Relate variables to questions
	• Study the context or setting of participants: a human-centered approach	• Employ statistical procedures in analysis, e.g. count how many times themes or codes occur
	• Validate the accuracy of findings: mostly come from closeness and extended contact with research participants	• Gather information numerically such as demographic data
	• Interpret the data	
	• Focus on a phenomenon (phenomenologism): understanding human perception as a major focus	
	• Undertake a case study analysis	

Table 3.1: The selection of qualitative and quantitative approaches based on the strategies outlined for the study (Creswell, 2009; Palys and Atchison, 2008)

Although qualitative approaches dominate the research design, quantitative measures are also used. Methods such as content analysis and analysis of secondary data incorporate statistical techniques using SPSS. Similarly, questions requiring quantitative responses, such as demographic information on household size and ethnicity, were asked on the household survey as a means of gathering data for statistical analysis. Quantitative analysis of survey data is important, especially when needed to complement the qualitative results and to analyze diverse opinions.

3.5 Research Design and Approach

Maxwell (2008) indicated that a good design would be able to produce the desired information efficiently while a weak design will result in failure of the researcher to accomplish their purposes, resulting in undesirable outcomes. According to Merriam-Webster Learners dictionary, a design literally means '*to plan and make (something) for a specific use or purpose'*. This literal meaning of design has been widely espoused in research in which the design is always associated with series of stages or tasks detailing what has to be done to complete the study. It is mostly represented in a linear model although some designs include repetitive procedures (De Vaus, 2001; Maxwell, 2008). Research design is not simply just a work plan. It is better to think of it as an interactive model consisting of research components that work harmoniously together to achieve compelling results (Maxwell, 2008). I have used Maxwell's interactive model of research design as guidance to provide flexibility in connecting the research components and to ensure that the evidence collected throughout the study can be used to answer the research questions as unambiguously as possible (Figure 3.2).

Goals/objectives:

1. To investigate the impacts of park establishment on the communities' livelihoods and strategies that can cope with changes and challenges.
2. To identify the role of institutional structures i.e. institutional arrangement, and processes in encouraging the communities' participation in park development and in sustaining livelihoods.
3. To identify the current institutional arrangements and the factors that characterizes them.
4. To investigate whether increasing tourism activities affect communities' livelihoods strategies and to investigate whether ecotourism is a possible alternative to diverse communities' livelihoods.

Conceptual Framework:

1. Institutional theory
2. Ecotourism concept
3. Sustainable livelihoods approach as a conceptual and analytical framework.

Research questions:

1. What impact does marine park establishment have on the livelihoods of local communities whom also native people?
2. What are the relationship between institutional structures (e.g. arrangement, organizations) and processes (e.g. policies, customary/property rights), and livelihoods outcomes?
3. How people construct their livelihoods strategies to cope with changes and challenges posed by the park's rules and regulations?
4. Is ecotourism an appropriate alternative livelihood strategy for marine park context? How do communities and park stakeholders perceived ecotourism?
5. What is the existing institutional arrangement for managing the marine park? What factors influenced institutional arrangement? Is the current arrangement for managing the park efficient and equitable?

Methods:
Data collection: Case study, site and participant observation, semi- structured interviews, household in-depth interviews (open-ended), participatory methods, interviews with key informants / stakeholders, secondary data
Analysis: Qualitative and quantitative analyses: SLF, Statistical analysis using SPSS

Validity:

Triangulation and crosschecking of qualitative and quantitative analyses. Triangulation of data sources, methods and theories.

Figure 3.2: An interactive model of research design (after Maxwell, 2008)

The design of this research is based on the logical structure of the inquiry rather than being merely a logistical matter. Maxwell's (2008) model of research design was chosen and adapted to arrange the inquiries into a coherent design. Basically, the design is based on the research questions framed at the very beginning of the research process. However, this does not mean that other important factors are ignored. The research questions are placed at the center of the design, which initially asks for descriptions of the phenomena and the setting of Tun Sakaran Marine Park (TSMP). To pose the questions, basic knowledge about the phenomena, the setting of TSMP, and the theories or concepts that can be used to study the marine park must be in hand. Therefore, the conceptual framework is formed based on the knowledge, theories, and concepts that are applicable to the phenomena that will be studied. The goals of this research relate closely to the research questions; in other words, the goals were determined by what I wanted to know but they were also derived from the current knowledge and theories that were used to form the conceptual framework that are relevant to the goals and research questions.

The methods that are employed are crucial in determining whether the research questions are answered or not, and influence the accomplishment of the research goals. However, although the questions posed are primarily descriptive in nature, alternative ways of interpreting findings that provoked 'why' questions are anticipated to be employed, resulting in further research questions and explanation. Therefore, the methods chosen for this study should be able to incorporate possible findings that might not answer the research questions directly but draw attention to other significant phenomena requiring further explanatory research. However, for the analysis and discussion of findings, qualitative and quantitative analyses will be conducted using the SLF and SPSS respectively. Plausible and relevant validity threats and how to deal with them

vary with the research questions and methods (Maxwell, 2008). Therefore, triangulation of data sources, theories, and analysis is necessary to permit the dismissal of plausible rival explanations although this will not eliminate alternative explanations completely. Moreover, triangulation will aid in the elimination of bias and enhance the validity of findings.

It is important to note that the research design is also influenced by other contextual factors in addition to the relationship of the five components describe above. For instance, lack of funding influenced my decision to adopt a concurrent mixed method approach and triangulation, while personal values (things that are important for me to do in this research but are not necessarily important to others), such as personal goals for an academic career and perceived issues and problems in the study area, motivated me to do the research.

3.6 Fieldwork

The fieldwork was conducted officially from September to December 2012. It was intended to start the fieldwork in April 2012, however, due to some constraints (i.e. lack of funding and pending ethics approval), the start was delayed until September. I did visit the study area, TSMP, in June 2012 but, on June 27th, I returned to the Malaysian Peninsular (where my home town is located) to take care of a family medical situation that required a further delay while awaiting the patient's full recovery.

The fieldwork resumed in September 2012. It was conducted in the largest marine park in Malaysia, the Tun Sakaran Marine Park, which is located within Semporna district, Sabah. It was established as a marine protected area in 2004. The marine park is governed by Sabah Parks Board of Trustees, hereafter called Sabah Parks, which is a state agency under the

Ministry of Tourism, Culture, and Environment of Sabah. The management of the protected areas in Sabah is not subject to Malaysia's federal laws and policies since Sabah was given an autonomous right for state administration. In April 2012, five months prior to the fieldwork, a consent letter was sent to Sabah Parks to request a permit to conduct research in the marine park. Two months later, in June 2012, Sabah Parks headquarters in Kota Kinabalu, the capital city of Sabah, issued a permit.

Sabah Parks appointed two staff members as research collaborators. However, the appointments were made without acknowledgement that the staff who were appointed no longer worked in the TSMP office in Semporna. They later gave me the contact number of the manager of TSMP and asked me to contact the manager directly. To my surprise, the 'manager' had left the office a substantial time before my arrival and another staff member had been temporarily assigned as the manager of TSMP. This created an initial negative impression concerning the management of the park. Being positive and trying not to judge on the basis of the first encounter to avoid biases in my data collection, I contacted all possible staff based in Semporna's office to assist me upon my arrival in Semporna. Fortunately, I managed to contact Mr. Elvin Michael Bavoh, Sabah Parks Research Officer who is based in Semporna, and an appointment was scheduled. Once the appointment was fixed, I flew to Semporna on September 16th and met with Mr. Bavoh the next day at his office in Semporna town.

During the meeting with Mr. Bavoh, I noticed that the research unit of the TSMP office is specifically established for scientific research on marine ecosystems. The park authority was undertaking no in-depth social research. Although a newly-establish community unit for TSMP

was establish in 2010, the scope of their work only covered population updates and seaweed licensing. Thus, a good source of information was not available from the TSMP office concerning the park's communities. Luckily, after I briefed Mr. Bavoh about the nature of my research, he indicated that he was willing to collaborate but that he was not from Semporna and knew little about the communities, especially the nature of maritime communities. He suggested that it would be better for me to be assigned a local staff member to assist in my fieldwork. He later assigned Mr. Jalil Mapait, to work with me. He is a local Semporna man who had worked with Sabah Parks for over twenty years.

3.6.1 Research assistants

Mr. Mapait, who I called '*abang*' (brother) Jalil, is a quiet man but he knows the communities very well. I put in extra efforts to ask him as much as I could and to encourage him to talk. He seemed to be happy to share all of his knowledge about the communities. Being born to a Bajau Laut family whose world was the sea, he was a qualified Dive Master (DM) for Sabah Parks. His work covered reef checks, supervision of a giant clam hatchery and involved other marine research being conducted at Sabah Parks sub-station in Boheydulang (one of the eight islands in the park). His status as a local and a Bajau Laut native was an advantage to this study. When I briefed him about the study, he was happy that I was to conduct such study, as he said that nothing much had been done in terms of research and participatory programs related to the communities living in the park. He briefly explained to me about the socio-cultural system of the Bajau, Bajau Laut, and Suluk communities before I visited the islands.

In the first week we visited the *Panglima* (village chiefs), if they had one, or the elders of the communities in all eight islands to obtain permission to enter their villages and to brief them about the research. The briefing was made by me if they could speak the Malay language or by *Abang* Jalil in the Bajau language. Once they had agreed to participate in the study, it was planned to fix a schedule for the next meeting for which the chief or the elders would gather other villagers together. Only one *Panglima*, in Pulau Selakan, was able to gather his fellow villagers while the others were not able to bring together their community due to logistical problems, such as no appropriate place to gather many people together as their houses were not connected to each other and they live on the water not on the islands themselves. The low level of desired participation, especially among the Bajau Laut community, was also an important reason and it is believed that this was due to their preference to look for 'something to eat' rather than to participate in research that would not benefit them economically, at least in the short term. *Abang* Jalil advised me to bring some food to the next meeting with the community in Pulau Selakan to show my appreciation for their attendance.

During the second meeting with the community in Pulau Selakan at the community hall, I briefed them about the study and distributed a consent form to solicit their participation in the household survey and a participatory event. Perhaps surprisingly given the initial challenges, all the attendees provided positive feedback and showed an interest in the study. I was surprised to see how they could not wait to voice their opinions since, according to them, no one has asked about their well-being before. They even invited us to the Imam's (religious leader) house right

after the meeting to discuss further about how they could help in collecting data about their community. I felt honoured and welcomed.

Abang Jalil played a significant role during the community meeting. He knew that relationships between the park and the community were not good and, thus, he had mentioned to the community that he was only helping me with the study, that it was independent of Sabah Parks and that they were all welcome to express their opinions. I had expressed my concern to *Abang* Jalil about my ability to acquire their genuine answers in the household survey and the participatory event if they knew that Sabah Parks staff would be there. At the same time, I needed assistance in translating the questions into the Bajau and Suluk language. *Abang* Jalil understood this and he introduced me to Mr. Sakkah Jauhali (later referred to as *Abang* Sakkah), a local Bajau man who had previous experience in assisting researchers in the park. However, all activities had to be reported to *Abang* Jalil as he was responsible not only for my research but also for my safety.

Abang Sakkah had a different character from *Abang* Jalil. Although he was a little bit older than *Abang* Jalil, he was more easygoing and talkative. I obtained a great deal of information from him. When I briefed him about my study, he was quite surprised and said that he had helped many researchers but all were interested in the marine environment (scientific research). He said that this study was the second occasion on which he had been involved in interviewing the communities as he remembered previously assisting Sabah Parks in doing a census survey. That was an advantage to me. *Abang* Sakkah had much knowledge about the park, from both scientific and socio-cultural perspective. He was not only my research assistant,

but was also my planner and logistics advisor. Given the nature of this study in a marine environment, logistical, geographical, and traditional knowledge were crucial in planning the surveys. *Abang* Sakkah made such information available for me to schedule my trips to the islands safely and efficiently.

He also had belief in the value of the study. I told him that Sabah Parks officials suggested that I cannot go to Bodgaya island because of safety concerns but I did not wish to exclude the area from my study. Later, he took me to Bodgaya, as he believed that since we were doing good work with good intentions, God would protect us. He was right and although the level of participation was low, I managed to interview twelve households from the area. I was indebted to him to help me to find solutions for such problem that arose during the fieldwork. Nevertheless, my husband, Helmi, was also a research teammate as he had been to Semporna before and initially knew the area better than I did.

3.6.2 Sampling

Palys and Atchison (2008) demonstrated that sampling depends significantly on three points: the research objectives, the researcher's understanding of the phenomena being studied, and practical constraints. Those three considerations were unavoidably important to this study. To understand what people thought about the establishment of the TSMP, along with the economic, social and institutional effects of such protection for local people, this study necessarily required an understanding of the people: their attitudes towards park establishment, how they make decisions, how they differ from one another, and other attributes that relate to the objectives of studying the people. Heterogeneity is an important dimension found within the communities of

TSMP and it affected the sampling method. Heterogeneity here refers to diversity among the population being studied.

Three ethnic groups live in TSMP: Bajau, Bajau Laut and Suluk. Although Bajau and Bajau Laut speak the same Sama language (perhaps with different dialects) and are believed to be from the same origins, they are different in terms of the places they lived in, the livelihoods strategies they choose, their perceptions of their lives and the institutional structures that shape their livelihoods. At the same time, Suluk people are distinctively different from Bajau and Bajau Laut, especially in terms of language and livelihood activities. In addition, the three ethnic groups live in the islands only among their own people, with the Bajau community living permanently in Selakan, the Bajau Laut scattered around Maiga, Bodgaya, Boheydulang and Sibuan, and the Suluk people found especially in Sebangkat (the great majority live on the reef-top settlement), and some villages in Bodgaya and Boheydulang. Different islands also support different livelihood activities: Sebangkat and Selakan are significant for seaweed farming, and Bodgaya and Boheydulang possess better soil for gardening. With this in mind, it was necessary to devise a sampling method to represent each ethnic group and island.

Proportionate stratified random sampling was chosen to ensure representation of the three ethnic groups in all of the six inhabited islands. However, the primary objective of this study is not to find and describe differences between the three ethnic groups or between the islands/villages (although it is important to discuss such differences during presentation of findings and outcomes). It is important that all three groups are represented to facilitate deep understanding of institutional issues and decisions on livelihoods strategies: a proportionate

sample ensures that each group and island has sufficient representation to enable the researcher to understand differences between these groups, especially in terms of the strategies chosen to construct their livelihoods and how these may have changed over time.

As mentioned previously, only the Pulau Selakan village chief managed to gather his fellow villagers for a community meeting, enabling the research team to distribute a consent form and to randomly select potential participants based on the consent forms returned. In the other islands (five to be considered since two islands had no inhabitants), the researcher and the team had to select houses randomly where the household members were available and qualified (adult men or women) to answer the survey. In some cases, houses suggested by *panglima*/elders were visited.

Although it consumed time and money, there was always a positive side to the challenges. For instance, prior to entering the park, sampling was based on the census survey from Sabah Parks that was conducted in 2010. However, when sailing around the islands to find potential participants, it was realized that the population had decreased[5]. This was due substantially to the nature of Bajau Laut life for they do not belong to one place but, rather, move on the sea to find sustenance. This influenced the final number of participants interviewed for this study. The final number of household surveys undertaken was 79. It was initially hoped that 200 interviews would be conducted. However, the reduced resident population and the challenging field condition reduced the number of surveys. Nevertheless, a satisfactory number of respondents from the three ethnic groups and all inhabited islands was obtained.

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[5] Refer to Section 3.6.5 for further explanation.

3.6.3 Data collection

During the early process of designing this research, a case study approach was chosen to explore in depth the establishment of a marine park and its consequences for the people that depend heavily on marine resources for their livelihoods. A relatively new marine protected area, TSMP, was chosen as the study site as it offered a great opportunity to examine the early impacts of park establishment, to examine the institutional structures and processes that influenced the community's livelihoods, and to investigate whether ecotourism is an option to diversify and improve the community's livelihoods.

Although, as described above, data collection occurred from September until December 2012, I visited Semporna in June 2012 to obtain ideas about the place from observation and to meet with important people i.e. Sabah Parks officials based in the Semporna branch and boatmen to arrange for logistics (boat renting, accommodation). Once the research team was formed and the sample finalized, a qualitative approach that included interactive methods (i.e. in-depth household surveys, key informant interviews, participatory events), observation and ethnography, and non-reactive methods (i.e. unobtrusive observation and archival methods) were undertaken. In addition, as the study aimed to examine institutional structures and processes related to native customary rights, it was vital to conduct interviews with other key stakeholders associated with the park. Given the study site's dynamic characteristics, especially the weather and the movement of people, the implementation of each research method required planning and scheduling.

3.6.4 Interactive Methods

Pollack and Fusoni (2005), in their book *Moving beyond icebreakers: interactive methods in the classroom,* demonstrated that the use of interactive methods in the classroom can help teachers to create a healthy, lively and respectful environment for learning to achieve the following objectives: engagement, fun, meaningful work together and the creation of positive, respectful relationships. Therefore, the interactive methods used in this research were expected to achieve these objectives, although a creative approach was required to create a pleasing environment, especially when sensitive questions and issues were involved. Three-quarters of the interview respondent were non-literate, which caused them to refuse to sign the consent form (although they agreed to participate) and they refused to be involved in participatory events that required them to hold a pen. However, I tried to come up with funny stories, such as by telling them that my grandmother was also afraid to write or sign anything. They ended up laughing when they wanted to write or draw anything but, at the same time, they became more comfortable and confident in their participation.

3.6.5 In-depth households surveys

The household survey was designed to obtain information about respondents' livelihood practices (before and after park establishment), demographic characteristics, institutional issues especially regarding local participation in park management and the relationship with native customary rights, and respondents' perceptions of ecotourism. Therefore, the interview questions were divided into four groups: demography; livelihoods; institutional structures and processes, and ecotourism. The four themes were each addressed through both closed and open-ended

questions. Open-ended questions allow the researcher to hear respondents' opinions in their own words and minimize external influences from the interviewer or from the research instrument itself. Structured questions, such as rating questions, were asked via 5-point Likert-type scales in order to establish the position of the respondent, whether and to what extent the respondent agreed or disagreed with park establishment or ecotourism (Palys and Atchison, 2008), and to permit ready compilation of responses. The combination of open-ended and structured questions permitted the quantification of attitudes and perceptions, eventually allowing triangulation and cross-checking for (in)consistency and validity (Simpson, 2007; Palys and Atchison, 2008).

To ensure the questions were answerable and valid, a pilot test was done prior to conducting the survey and it was tested with the research assistants. To my surprise, significant amendments had to be made, especially regarding ecotourism, because I had mistakenly assumed that some people would be involved in (eco)tourism activities (as ecotourism was mentioned in the park's management plan and because of the popularity of the region as a world-class diving destination). In reality, the park community was not involved in tourism-based livelihoods.

Based on data from the latest 2010 census undertaken by Sabah Parks, the park contained 247 households comprised of 1,619 people. However, during fieldwork it was found that the number had decreased significantly to about 184 households (this is not a precise figure but is an estimate made from observation by boat and confirmed by the experience of the research assistant who had been involved in the census survey). Unfortunately, it is hard to get an exact population number as government data or the census only include those with citizenship but the majority of the Bajau Laut living in the park are stateless (The 2010 census undertaken by Sabah

Parks included non-citizens but excluded people living on reef-top settlements between Sebangkat and Selakan as they assumed that those people were working for the seaweed farm and were not associated with the park). Eventually, 79 households were interviewed i.e. approaching half of all households in the park. According to *Abang* Sakkah, they were the longest interviews that he had ever conducted: 30-45 minutes were spent at each household and sometimes longer when the host offered food and drinks. He joked that he would never assist a social scientist again after this. However, I knew that he was joking as I could see how committed and interested he was in the study and he was always first and waiting for me at the jetty before the 'islands hopping' began. Nevertheless, *Abang* Sakkah advised me to shorten the interviews several times according to the weather (although I did not see the warning signs that were identified based on his traditional knowledge and he was always right).

The survey schedule was prepared meticulously by *Abang* Sakkah. He advised on the best time to go according to the tidal movements and the weather, type of boat suitable to access some areas (especially those houses around the seaweed farm) and, importantly, the time when potential respondents were likely to be available at their house. There were times when it was not possible to follow the schedule. However, in Pulau Selakan where villagers gave their consent during the community meeting, the interview process was much more convenient and went according to the schedule. In addition, people in Selakan were very helpful and understanding. They knew that I was spending money for accommodation and boat rental and that it would be time-consuming if I had to travel back and forth. Thus, they invited me to stay at the *panglima* house during the weekend to facilitate my research in their village in a convenient and efficient

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way. I readily accepted the invitation, as it was an opportunity for me to become closer to the community and to observe their daily activities.

3.6.6 Participatory events

In addition to the household survey, a series of participatory community events were conducted involving participatory techniques such as asset mapping, historical timelines and the H diagram. These events were designed to empower the community by drawing upon their ability to express opinions and analyze issues and problems in their own context. Importantly, the events also involved marginalized groups such women and single mothers. Unfortunately, these participatory events only took place in Pulau Selakan because of their better institutional coordination and it is believed due to their legal citizenship status with native customary rights. I approached the other Bajau Laut and Suluk community leaders/elders but they were reluctant to participate in such activities, perhaps due to their feeling of inferiority. It was sad to listen to their reasons not to be involved in these ways, as they expressed that they are not important and no one really cares. Furthermore, according to the leaders/elders, it is impossible to gather many people together at one time, as they do not have a suitable place (their stilt houses/boathouses on water can only accommodate their family). In the end, I supplemented the household survey conducted in the Bajau Laut and Suluk community with additional questions although it can be argued that the responses are not comparable.

Most of the events in Selakan lasted about two to three hours and attendance range from 10 to 15 people. Each meeting began with the principal researcher introducing the activities that

would be undertaken and the objectives of those activities. Food and drink were provided during each meeting as a token of appreciation for participants' time and cooperation.

Figure 3.3: A briefing was conducted before participatory event took place in Kg. Selakan.

The asset mapping techniques was conducted for two purposes: to ascertain items that the community perceived as assets in the island in which they live, and to mark fishing / seaweed farming areas within TSMP. A map of TSMP was provided by the researcher to facilitate this. Next, an historical timeline was drawn to recall important events that had occurred in their community. Although significant events were identified that occurred from the 1950s to 2012, participants gave more attention to the pre- and post-2004 period, which was the time

immediately before and after park establishment. Finally, the H diagram was drawn to express feelings (happy, unhappy, neutral) about events that had occurred in their territory. The strategy involved the researcher drawing a big H diagram and then asking simple questions such as 'What are your feelings toward the park?' Then participants would provide their reasons why they felt happy, unhappy, or neutral towards the park, and these would be entered upon the diagram.

Upon completion of the participatory activities, it became more obvious why it was not possible to run such activities among the Bajau Laut and Suluk communities. After crosschecking with the data from the household surveys, reasons for the situation were identified. The majority of the questions and activities addressed in the events were more appropriate for a community with a sedentary lifestyle, with established local institutions and, importantly, with legal entitlements. Bajau Laut people were reluctant to draw an asset map as they only had their houses and boats. They were not able to express their feelings/opinions/perceptions about some topics because they were significantly marginalized in terms of development. If they were happy with the park, then they stayed. If they were not happy, then they left. Their world is the sea and they cannot be evicted from the sea. They did not want to waste their time and boat fuel to attend such research activities when they perceived that they lacked respect. In contrast, the household surveys were more successful in gaining information about the Bajau Laut although their participation was still relatively limited.

3.6.7 Key informants' / stakeholders' interviews
In addition to the household interviews, interviews were also conducted with other stakeholders. Such information is very important for examining the performance of the park authority,

especially in dealing with marine resource management and to assess the institutional arrangements of the marine park. A number of Sabah Parks officials, including the manager (who is apparently pursuing a Masters degree in Indonesia) were interviewed. I was very fortunate to interview the Chairman of the Local Community Forum (LCF) of TSMP, who is the only landlord (of a TSMP island) that is still alive and has considerable knowledge regarding the historical and current issues of the park. In addition, he also introduced me to other key informants, such as the Treasurer of LCF (who is also the owner of the seaweed company operating in Sebangkat) and the Vice President of Semporna Local Tourism Operators. I also interviewed eight managers, representing ten hotels and dive operators in Semporna, who regularly bring tourists into the park. Other key informants included a WWF official and a conservationist from the Marine Conservation Society, United Kingdom. Unfortunately, interviews with the marine park authority could only go as far as the district level as the state official did not reply to the invitation letter, assuming that Sabah Parks is representing the state.

3.6.8 Observation

In the past, the term 'participant observation', 'ethnography', 'fieldwork', and 'case study' have been used synonymously to refer to qualitative techniques involving empirical data collection (Smith, 1978). However, Gans (1999) argued that the rising influence of postmodernity has resulted in renaming Participant Observation (PO) as ethnography, a term he rejected for abusing the PO method, which he argued, is the only way that enables a researcher to get close to people to observe what they actually do. Later, Palys and Atchison (2008) demonstrated that despite the differences of PO and ethnography, they share a similarity in terms of the social scientific

purpose which is to discover and understand 'others'. Both PO and ethnography are associated with techniques whereby the researcher spends extensive time in a selected study site to try to understand phenomena from the perspectives of the people of the setting that is studied.

Ethnography differs somewhat from PO in its history and how it is been developed as a research method. Atkinson and Hammersley (1994) demonstrated that ethnographic studies rely significantly or partly on participant observation. Later in 1995, the authors defined ethnography as follows: *'...[ethnography] involves the ethnographer participating, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions - in fact, collecting whatever data are available to throw light on the issues that are the focus of the research'*. Moreover, the authors demonstrated that ethnography often have the tendency to work with unstructured data and consuming a lot of time.

In addition, observation is described as *'the selection, provocation, recording and encoding of that set of behaviors and organisms in situ which is consistent with empirical aims'* (Weick, 1968, pp. 360). Moreover, observation is always there in social research since studying the social world also means to be part of that world and therefore understanding through observation cannot be sidelined in order to demonstrate the characteristic of researchers (Hammersley and Atkinson, 1983, as cited in Atkinson and Hammersley, 1994, pp. 249). From both definitions and also from other scholars' definitions of ethnography and observation, it can be concluded that this study used observation method as to support the understanding of the social, institutional, and cultural bases of the Bajau, Bajau Laut, and Suluk people that affect their choices and decisions on livelihood strategies. Observation is chosen rather than espousing

an ethnography method because limited time is the major constraint in this study and therefore observation is the most convenient method that will complement the data from household surveys and participatory events.

Observation started in June 2012, three months before I officially started the fieldwork. Unfortunately, I only managed to observe the marine park setting for a month before I had to leave the field due to unexpected family obligations. I resumed the observatory approach almost simultaneously with the household survey, interviews and participatory methods in September until December 2012. Extensive field notes and a diary for personal narratives were completed during the period of my fieldwork. Unofficial interviews were undertaken on a day-to-day basis. Observation was not limited to the marine park alone but covered Semporna district as a whole since Sama-Bajau (Bajau and Bajau Laut) is the ethnic majority there.

Although observation is important in the study methods, informal and formal interviews, and photographs were used to supplement the observational data, thus allowing for triangulation and cross-validity checks. The main constraint in conducting an in-depth observational approach in this study was finance and the restricted time that was available to spend in the study area. Lack of funding prevented me from conducting a longitudinal study.

3.6.9 Unobtrusive and archival methods for secondary data collection

The utilization of interactive methods revealed that such techniques, which require direct contact with the participants, could create reactions because the participants knew they were being observed and studied (Palys and Atchison, 2008). This might result in modifications of behaviors or attitudes towards the questions asked. Therefore, unobtrusive measures were undertaken that

included secondary/archival data (e.g. analysis of government records and statistics, newspapers, photographs, books, reports) and physical trace measures (e.g. observing evidence that might resulted from certain kinds of action).

The physical trace measures in this study were observation of any kind of evidence that might be missing from the answers acquired during the interviews and survey. For instance, respondents might answer that protection of the marine environment is crucial but, from the physical trace evidence, the prevalence of garbage, especially plastic bags and bottles in the water surrounding their settlements, revealed a different perspective. I could infer that a person had been involved in fish bombing (information that would not likely be revealed during interviews) by observing the loss of one hand.

3.7 Data analysis

The process of data analysis involves describing and summarizing the mass of words and images obtained from the interviews and observations (Lacey and Luff, 2001; Creswell, 2009). The process involves description and interpretation, leading to answers to research questions and explanation of those answers. Figure 3.3 illustrates the process of data analysis that employed in this study. The study used both qualitative and quantitative approaches and a concurrent strategy was chosen for the analysis.
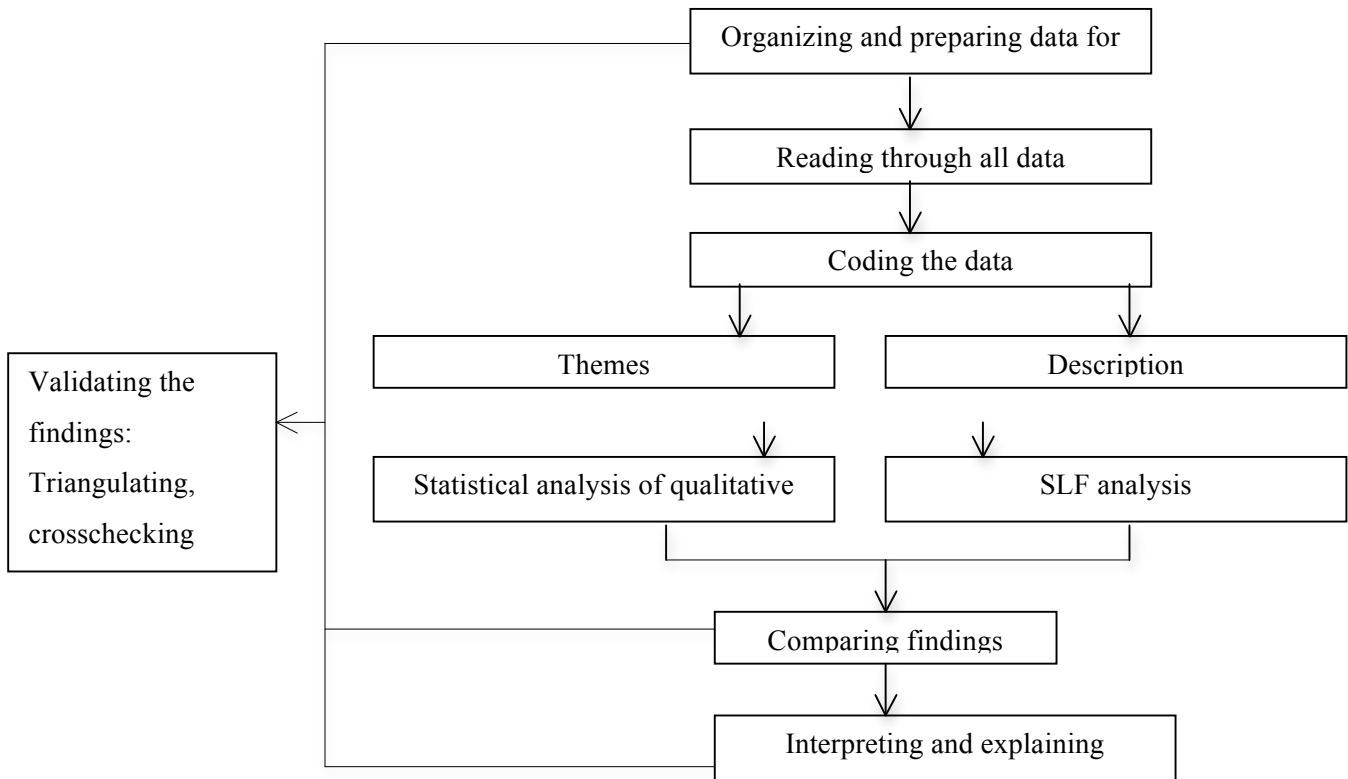
Figure 3.4: The process of data analysis (After Creswell, 2009)

The process of data analysis started with organizing and preparing the raw data for analysis. This included transcribing recorded interviews, typing up field notes, reviewing photographs, and removing direct identifiers (replacing personal information with codes so that only the principal researcher can identify the specific informant). Once the data were organized, it was easier to read all of the information to obtain an overview of its contents. This important stage revealed preliminary ideas for coding and creating themes. This was largely done on-site to permit the acquisition of missing evidence or to seek clarification on provoking or emerging categories. According to Creswell (2009), coding requires the researcher to categorize the

general ideas or items of information into sections or segments of text in order to facilitate interpretation of the information. For example, groupings such as 'ethnic peoples' and 'livelihood activities' were used to sort the data and were used subsequently to look for differences or similarities in livelihood strategies between Bajau, Bajau Laut and Suluk people. Based on the themes and description, data were then analyzed with SPSS for statistical measures and the SLF for descriptive measures. The mix-method analysis allowed for triangulation and cross-checking for data validation and reliability.

3.8 Ethical considerations

According to Palys and Atchison (2008), research ethics or codes of ethics refer to a set of rules that guide researchers in interacting with research participants. Those rules explain the confidentiality of rights and interests of participants that researchers must commit to protect. The researcher needed to conform to codes of ethics in order to develop a trust with participants, promote the integrity of research, protect the identities and interests of informants, and be able to cope with problems (Creswell, 2009).

Ethical issues were identified as being present in every stage of the research. The following are the issues that needed to be addressed in the various research stages:

- Ethical issues in the research problem: I had to ensure that the acquisition of answers to the research problems would benefit the participants being studied and not further marginalize or disempower them.

- Ethical issues in the research purpose and questions: It was very important to explain the purpose statement and main research questions in a clear and comprehensible way to

avoid misunderstanding.

- Ethical issues in data collection: The data collection stage is a major concern where many ethical issues may arise. Having this in mind, the household survey, interviews, and consent forms were designed to support voluntary participation. Prior to collecting data, all the research instruments received full ethics clearance from the University of Waterloo. Participants were given an information letter, a consent form that stated their anonymity would be maintained, and assurance that interview information would be retained in confidence.

- Ethical issues in data analysis and interpretation: The main concern at this stage was to protect the anonymity of individuals and to keep the data confidential.

- Ethical issues in writing and disseminating the research: It is necessary to be honest in writing up and interpreting the research results. It is possible that close contact with the people may result in interpretation biases. This is minimized by triangulation of research methods and sources of information.

3.9 Research limitations

Although the SLF is useful framework to guide research design, it faces several implementation difficulties. Firstly, management and development activities may be owned or conducted by a single government department (Farrington, 2001) and the implications of their activities may be far-reaching. This is the case of TSMP. For instance, TSMP is managed exclusively by Sabah Parks. Although collaboration for conservation is ongoing, no formal mechanism for collaborative management has been established. Secondly, a SL approach ideally requires long-

term ethnographic research to gain deep insights from participant observation and sufficient data to understand stakeholders at different levels of operation and involvement. With limited budget and time, this research was conducted primarily using surveys and interviews, and observation was undertaken primarily during these processes. Finally and importantly, politics and power can be missed when analyzing through a livelihoods perspective. In fact, Baumann (2000) firmly suggested the incorporation of political capital into the SLF. He argued that political capital is crucial in order to make SLF into an operational decision-making tool as institutional arrangements often involve a political process. However, instead of adding another capital to the assets pentagon (please refer Figure 2.3), Scoones (2009) argued that the institutional processes and organizational structures component in the SLF should explicitly analyze and discuss politics. He suggested that livelihoods analysis should simultaneously look at both micro- and macro-level political structures and processes to determine opportunities and threats, rather than undertaking a disconnected analysis that often prioritizes the local context.

Since most Bajau Laut and Suluk people live in the park temporarily, it was difficult to predict the population size. In addition, the socially-marginalized status commonly felt by the Bajau Laut people often resulted in 'no comment' or 'do not know' answers, especially to questions regarding opinions and perceptions. Also, unexpected findings concerning limited involvement in ecotourism required major amendments to the household survey questions, delaying the interview process. Moreover, logistical and temporal constraints, such as tidal movements, longer than expected interviews and unpunctual boatmen, occasionally stranded the research team because the boat could not move at low tide, influencing the number of interviews

completed each day. Last but not least, although benefitting from strong community interest, lack of cooperation from higher-level institutions, especially from government officials, hindered institutional analysis.

Chapter 4

Introduction of the study area

4.1 Introduction

With the growth of dive tourism in Semporna, there has been increased pressure placed by divers and the tourism industry on marine resources that have been traditionally used by local fishermen. This is particularly the case in Tun Sakaran Marine Park. Besides being gazette under the initiative of the Marine Conservation Society (MCS, UK) and Sabah Parks, the park has become increasingly important as a tourist attraction because of the beautiful underwater landscapes and also the lifestyles of the inhabitants, which they support. Unfortunately, although ecotourism has been strategically planned to diversify local people's livelihoods, especially to reduce people's dependency on marine resources, the implementation is in its infancy. This has brought questions concerning the communities' interests in becoming involved in or discouraging the development of ecotourism. Moreover, the NCR entitlements for certain people provide the rights of the people to land ownership on the islands and, thus, should encourage their involvement in ecotourism and park activities. Therefore, examining the institutional arrangements that have evolved between park and local communities is crucial in order to ensure livelihoods sustainability. Thus, the purpose of this chapter is to present information on the physical and demographic characteristics of communities in TSMP as a foundation for the discussion of institutional and livelihoods issues that will be addressed in the following chapters.

4.2 Islands of TSMP: Environmental features

4.2.1 Biophysical environment

TSMP is situated at the entrance of Darvel Bay in Semporna, off the southeast coast of Sabah, Malaysia (Figures 4.2 and 4.3). It is the largest marine park in Malaysia. It includes eight islands and associated reefs, and covers an area of approximately 350 sq. km. The large, central islands (Bodgaya and Boheydulang) are formed of volcanic rock. This explains the richness of the soil that makes them suitable for planting crops. The outlying islands are low limestone platforms or sand cays (SIP Management Plan, 2001).

Figure 4.1: Location of TSMP on the southeast coast of Sabah. The international water boundary is shown as a red line (SIP Management Plan, 2001. Scale 1cm: 30km)
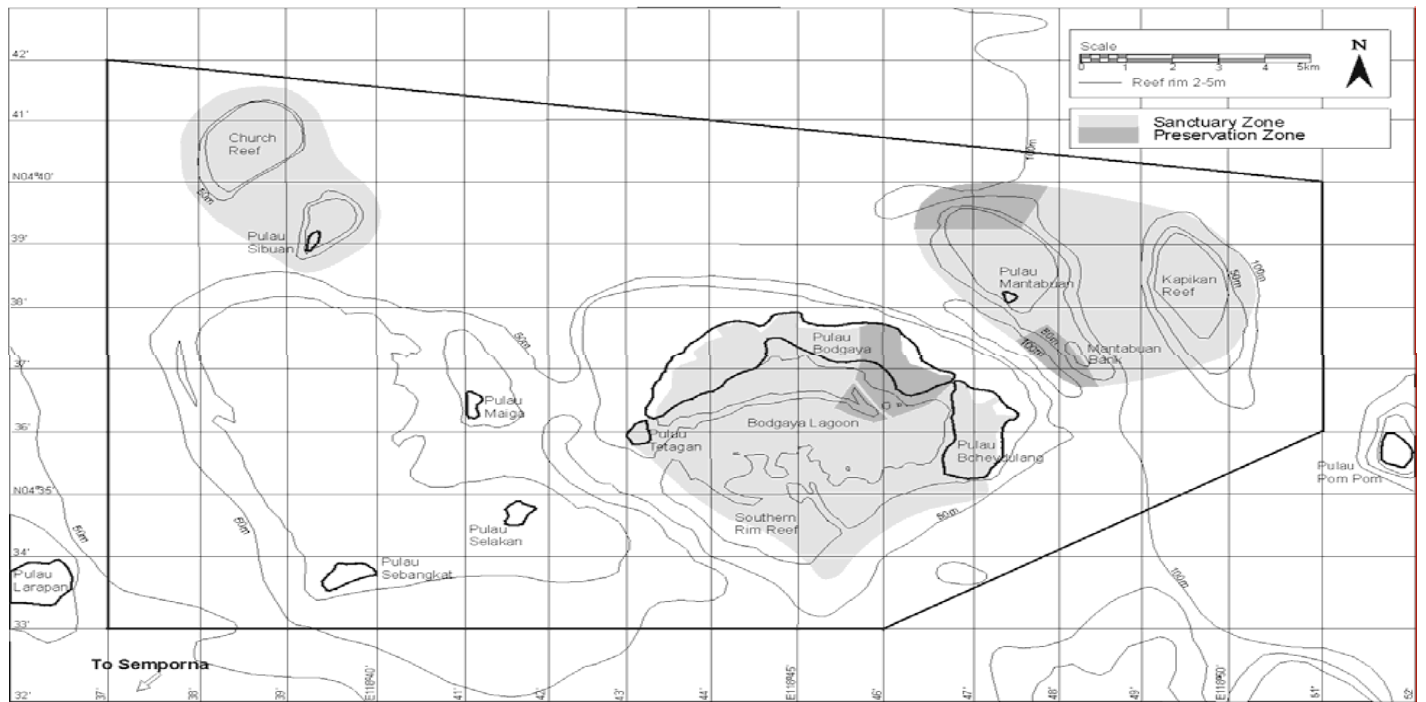
Figure 4.2: Map showing the eight islands and associated reefs (SIP Management Plan, 2001)

Coral reefs fringe all of the islands in the park. Also Church and Kapikan Reefs have no islands, but are dry in places at low water. These reefs are among the favourite fishing spots for local fisherman (SIP Management Plan, 2001). Fringing, patch and ribbon reefs can also be found within Bodgaya lagoon. The lagoon is now a sanctuary zone, which means that in order to protect the area from over-fishing, no activities are allowed there (SIP Management Plan, 2001). The three central islands (Bodgaya, Boheydulang and Tetagan) together form a semi-circular group marking part of the rim of a large volcanic crater that is now partially dissected and flooded by the sea. The crater rim continues below the water as a belt of coral reefs known as the Southern Rim reef connecting Tetagan and Boheydulang (SIP Management Plan, 2001). Sebangkat and neighbouring Selakan appear from above the water to be separate from the Bodgaya 'volcano'. Sebangkat and Selakan are raised limestone platforms. Maiga, Sibuan and Mantabuan are sand cays built from the eroded remains of the surrounding coral reefs. Each has an elevation of about 1-2 m above sea level and is situated at the southern end of their respective reef which is generally oval to elongate in shape. The Mantabuan bank reef, and two patch reefs, Church Reef and Kapikan Reef, may be submerged reefs originally associated with mounds on the seabed (SIP Management Plan, 2001). Thus, a common origin resulting from volcanic activity and coral reef construction has resulted in a predominantly marine area interspersed with fragmented reef-fringed islands.

4.2.2 Climate and sea conditions

Semporna has tropical weather with two monsoon periods separated by periods of transition. The northeast monsoon develops during December and January, bringing rain and steady winds from

the northeast. The southwest monsoon develops during June and July (SIP Management Plan, 2001). The transition period from March to June contains the driest months that affect seaweed growth, leading to decreased seaweed production. These seasons are based on average conditions and, in any given year, can vary according to the strength of the monsoons.

The climate is also being influenced by global climate change. In the 1970s, the driest month occurred in January to February (Sather, 1997) but, according to the local people during interviews conducted in 2012, 59 of 79 respondents suggested that the driest months would occur in April-May. Mean annual rainfall is 2200 mm and mean annual air temperature is 26.6°C with a monthly variation of less than 1°C.

Most islands in TSMP are partially sheltered from the southwesterly winds by the Semporna Peninsular and Pulau Bum Bum but are relatively open to the northeast wind. The greater influence of the winds from the northeast has formed the sand cays on Mantabuan and Sibuan at the southern side of the reef top. The formation of the sand cays in both islands has resulted in beautiful sandy white beaches that attract tourists/divers to include these islands in their holiday/diving trips. Hurricanes do not occur in Sabah, but their residual impact is sometimes felt (SIP Management Plan, 2001). However, strong storm sometimes occur causing heavy rainfall and large waves (Subject #29, 2012).

The implications of this, as far as tourism is concerned, is that the drier, less stormy part of the year is the best time for visiting but the exact timing of this period may be changing in association with global climate change. Furthermore, all of the characteristics of each islands

discussed above also determine demographic and livelihoods activities of the communities in the park.

4.3 Introduction to Tun Sakaran Marine Park communities

By understanding the historical, social and economic factors of each ethnic, one can conclude that the study area is complex, ethnically. Three major ethnic groups populate Semporna: Bajau, Bajau Laut and Suluk (*Taosug*) and these groups are also the inhabitants of TSMP. Bajau and Bajau Laut are collectively known as Sama-Bajau. However, the term Bajau refers to a settled, previously maritime community mainly living in Semporna town or nearby islands. Bajau Laut, otherwise known as the Sea Gypsies, still lives in sprawling stilt villages above the water or inside their traditional *Lepa* boats. Suluk refers to a community of migrants, originally from the southern Philippines, especially from the Sulu archipelago. However, this label was only applied to immigrants after the western colonization of Sabah. Before the establishment of the British North Borneo Chartered Company (BNBCC)[6] in 1881, Sabah was under the territory of the Sultanate of Sulu. During the reign of the Sulu sultanate, most of the villages and district chiefs were Suluk people. Notably today, some of Sabahan ministers have a Suluk bloodline and the Sulu sultanate title for dignitaries is still used in Sabah state administration. Nevertheless, Suluk

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[6] In 1877, acquisition of North Borneo by the Chartered Company was negotiated between Baron Von Overbeck, an Austrian businessman, partnered with Alfred and Edward Dent, heads of a prominent British trading company based in Shanghai, and the Sultan of Brunei, who had control over the western area, and the Sultan of Sulu who controlled the eastern side. Overbeck and Dents managed to rule North Borneo from 1877-1881 and, due to financial problems, the Dents, as respectable merchants and bankers in England, asked for financial back up from the British government. In 1881, North Borneo was officially under the British administration known as the British North Borneo Chartered Company (BNBCC) (Doolitle, 2003).

people are only recognized as a minority group in Sabah despite their long history and strong connection with the 'Land below the wind' (Statistik Sabah, 2010).

4.3.1 Historical and cultural setting

Figure 4.3: Map of the historical territory of the Sultanate of Sulu. The Sulu archipelago is in the red circle.

The historical and cultural setting of the Sama-Bajau and Suluk people evolved on the Sulu-Sulawesi (Celebes) Sea. These two seas are very significant in discussing the history of Sama-Bajau and Suluk ethnicities, in both the pre-colonial and post-colonial eras. The Sulu-Sulawesi Sea covers a vast area of around one million square kilometers, and lies at the heart of one of the world's richest areas of tropical marine biodiversity (DeVantier et. al, 2004). Geopolitically, the sea connects three developing nations: the Philippines, Indonesia and Malaysia. The adjacent coastal and terrestrial ecosystems support 33 million people, most with

subsistence livelihoods that rely heavily on marine resources (DeVantier et. al, 2004; Jubilado et. al, 2010).

Before the Western colonization, the area within the blue dotted line as shown in Figure 4.4 was the territory of Sultanate of Sulu. According to Jubilado et. al (2010), the Suluk people considered the whole of this area as their home. Meanwhile, the Sama Bajau considered the Sulu-Sulawesi Sea as their ancestral home. Socially stratified, the Sama-Bajau people were controlled by the Suluk's leaders (Jubilado et. al, 2010). They were used as labor by the Suluk leaders in the exploitation of pearls, sea cucumber and other marine resources.

The situation changed when the Western colonialists introduced the new concept of international political boundaries that was previously unfamiliar to the people of the Sulu-Sulawesi region (Sather, 1997). Boundaries were imposed on the Sulu-Sulawesi Sea that divided the area into three nation states: Malaysia, Indonesia and the Philippines. The consequences of the colonization are endless. Sather (1997) demonstrated that the once-powerful Suluk people became powerless in Sabah and they could no longer travel between the Sulu archipelago and Sabah without proper identification papers. The Suluk that had settled previously in Sabah received a Malaysian ID and became separated from their families in the Sulu archipelago that is now the territory of the Philippines. However, as they believe that they still belong to the area that once was their home, they still travel back and forth from the Sulu archipelago to Sabah. One significant consequence of this situation is the uncontrolled legal and illegal migration of thousands of Suluk every year to Sabah (Navallo, 2013). Similarly, the Sama-Bajau people once roamed freely throughout the Sulu-Sulawesi Sea but were then confined to the boundaries drawn

by the colonial masters who wished to restrict their mobility. Moreover, boat licensing was introduced to register all boats and this was resisted especially by the Bajau community because of the fees incurred (Sather, 1997).

4.3.2 The Sama-Bajau: An indigenous ethnic group of maritime Southeast Asia

People generally known as Bajau, or locally known as Sama-Bajau, belong to a much larger group of Sama-Bajau-speaking peoples, which is one of the most widely dispersed ethno-linguistic indigenous groups in insular Southeast Asia, extending from the north in Luzon, Philippines, to the south in northern Australia (Sather, 1997). Scholars have indicated that they were the major maritime people in Southeast Asia and extended their places of habitation as far as the Murtaban Gulf in Burma to the Straits of Malacca (Saat, 2003). Some old manuscripts have supported theories that have made connections between the Sama-Bajau and other Southeast Asian sea nomads, namely the Orang Laut (Riau-Lingga archipelago), Orang Selat (Straits of Malacca), and the Mowken tribe (Mergui archipelago) and have suggested that they may come from the same origins (Chou, 2006). However, given that very little archaeological research has been done on the Sama-Bajau plus their complex nomadic life, their origins remain uncertain. In more recent years, they have lived primarily in Malaysian Sabah, Indonesian Sulawesi, and the Philippines' Sulu archipelago. In Malaysia, particularly in Sabah, the Bajau can be found on the west coast, mainly in Kota Belud, and on the southeast coast, mainly in Semporna.

According to Saat (2003) there are three main identifiers of Sama-Bajau: the term, Sama or Bajau; their language; and their religion, Islam. The origins of the terms Sama and Bajau have different histories. Bajau is the term used by the outsiders (Saat, 2003; Sather, 1997; Nimmo,) and which is commonly found in the English and Dutch ethnographic literatures from the early eighteenth century and in the indigenous text from the Brunei Malay royal geneology written in 1735 (Sather, 1997). Bajau is said to be derived from the Malay word 'berjauh' or ba(ber)-jau (jauh), meaning 'the state of being far' (Omar, 1983; Saat, 2003; Mahali, 2010). The nature of their life, sailing on the sea, caused them to be far from their neighboring settled ethnic groups such as the Malay in the Malay Archipelago and the Suluk in the Sulu archipelago. Meanwhile the term 'Sama' is used among the Bajau community. The origin of the term 'Sama' is said to come from the Malay word 'sama' which means 'same', that connotes their similar origins (Saat, 2003).

Saat (2003) further associated those identities with their characteristics of being boat people, being less Muslim and sea-nomadic communities. These characteristics made them rank low in social status between the Malay and the Suluk. At present in Sabah, the Bajau ethnic group is divided into two sub-groups: Bajau and Bajau Laut (Sea Bajau). This subdivision of the Bajau group is the result of social mobility among the Sama-Bajau people to elevate their status and consolidate their identity (Warren, 1983). Sama- Bajau people modified their identity by adopting a sedentary mode of life, practicing Islamic rituals seriously and working in agriculture. Islam is, thus, one marker of the subdivision of Bajau and Bajau Laut (Saat, 2003). Saat further demonstrated that Sulu society (Suluk), under the reign of the Sulu sultanate (1457-1917), bore

bitter feelings towards the Sama-Bajau and their nomadic culture and regarded them as being insufficiently Muslim. The Sama-Bajau were gradually accepted by the Suluk people as they settled permanently and built their own mosque. Nowadays, some of Bajau community is engaged in agricultural activities, such as in palm oil and rubber plantations, and others are still fishing (Fieldwork data, 2012). In contrast to earlier times, they are now considered as having superior status to the Suluk immigrants in Semporna (Subject #026, 2012). Meanwhile, the Bajau Laut still practice their traditional livelihoods that depend heavily on marine resources. Despite their same origin, the current Bajau (Land Bajau) and Bajau Laut (Sea Bajau) groups are distinguished in terms of their status, livelihoods and overall well-being (Fieldwork data, 2012). Moreover, the Sama-Bajau communities distinguish themselves with place names to signify their geographic origin. Examples are Sama Siasi, Sama Simunul, Sama Semporna, Sama Kota Belud, Sama Tuaran, Sama Mangkabong, Sama Sabah, Sama Indonesia and Sama Philippines (Saat, 2003).

Currently, the Sama-Bajau can be listed as nationals of Indonesia, the Philippines or Malaysia. However, issues of nationality are still prevalent among the Bajau Laut people in Sabah, Malaysia, since the majority of them have not registered their birth and marriage, and this affects their qualification to apply for valid Malaysian Identity (ID) (Subject #026, 2012).

4.3.3 The Suluk and their origin

The Suluk or Taosug people are an ethnic group originally from the southern part of the Philippines known as the Sulu archipelago. The term Taosug was derived from two local Sulu words, Tao (people) and Sug (sea current) meaning "people of the current" referring to their homelands in the Sulu archipelago (Haskins & Haskins, 1982). The flow of the tide through the innumerable narrow channels separating the numerous islands of the archipelago gives rise to unusually strong currents, which influence the seafaring life of the people. In Sabah, the Taosug people are called Suluk, as documented in official documents such as birth certificates and the National Registration Identity Card (NRIC) (PMR, 2013).

It is important to note that approximately four centuries of colonization have had a great influence on the cultural and geographical identity of Philippine society, particularly among the Islamized ethnic communities in the southern part of the Philippines collectively known as Moro[7], a name given to them by the Spanish colonial authority (Angeles, 2010). Historically, in the late thirteenth century, Islam spread through Southeast Asia and started to influence the cultures of the Sulu archipelago and Mindanao. Since then, the spread of Islam has changed the social and cultural identity of the region (Milligan, 2005). The first sultanate was founded in 1450 by a well-known Muslim missionary named Abu Bakr and it lasted until 1917 (Wright, 1966). After the foundation of the sultanate of Sulu, Islamization grew rapidly and, in the seventeenth century, it was further strengthened through alliances with neighboring Muslims, the modern-day Malaysia and Indonesia (Milligan, 2005).

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[7] Moro is the name given by the Spaniards when they arrived in the southern Philippines. It is derived from Moors, a name associated with the Muslim community in the Iberian Peninsula that the Spanish had defeated a century before they colonized the Philippines in the 16th century.

The combination of colonial experience, from Spanish to American, and cultural diversity, unsurprisingly caused the diverse communities to shun the rules and laws of the colonial authorities and the Philippine government and Suluk people refuse to be called Filipino (Haskins & Haskins, 1982). Moreover, before Western colonization, the sultanate was well established in the region[8] and that was the main reason for hostility between the Muslim communities in the south and the Spaniards, Americans and, even, the current ruling Philippine government (which took over the country from the colonial authorities after independence) (Milligan, 2005). Thus, there have been endless conflicts over the past eight centuries and the southern region remains politically unstable today. As a result, thousands of Suluk immigrants migrate to Sabah annually (Milligan, 2005). According to interviews conducted for this study, most of the Suluk seek safety and a better life as reasons for migration.

4.4 Livelihoods of the communities in TSMP

Generally, fishing and seaweed farming are the main activities of the people in the park. Apart from fishing and seaweed farming, cultivating, hunting and extracting timber are also among the sources of livelihood for the communities except for the Bajau Laut who depend heavily on marine resources. However, these activities have been restricted since the establishment of the park in 2004. Coconut plantation were also established but were excluded once the islands were

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[8] The Sulu sultanate ruled from 1450 until 1917. The sultanate was never defeated during wars again the Spanish (1521-1898) and Americans (1898-1946). However, the Sultanate's temporal power was relinquished in March 1915 after American commanders negotiated with Sultan Jamalul Kiram on behalf of then-Governor-General Francis Burton Harrison. An agreement was subsequently signed and was called the "Carpenter Agreement". By this agreement, the Sultan relinquished all temporal power over territory within the Philippines (except for certain specific land granted to Sultan Jamalul Kiram and his heirs), but retained his rights of sovereignty over the territory of North Borneo and his religious authority as head of the Islamic insitution in Sulu.

gazetted into a marine park and new rules and regulations had to be followed (SIP Management Plan, 2001).

Since the islands have been established as a marine park, all livelihood activities have been restricted and watched by the management authority. Local communities also have been made aware, advised and taught about conservation and the benefits of conservation. In conjunction with this, they have faced restrictions on extracting marine resources as their main livelihood. However, TSMP, which consists of beautiful islands and has many attributes and great potential to be suitable for ecotourism development. Local communities generally see this as an opportunity to improve their livelihoods and interested parties see this as an incentive for conservation as well as providing opportunities to promote conservation and environmental awareness (SIP Management Plan, 2001). Based on the above considerations, an evaluation of the current status of livelihoods and ecotourism activities in TSMP, and the impacts on communities' well-being, is significant.

4.5 Demographic characteristic of study participants

Seventy-nine respondents (N=79) were interviewed during the in-depth household survey. Descriptive statistics are presented in Table 4.1. More than 90% of the respondents (n=73) were middle-aged (30-49 years old) and older (50 and above). Out-migration of young people meant that young families were seldom encountered during the household survey. Three respondents mentioned that they used to work in nearby towns when they were young but decided to come and stay in the islands when they grew older. However, the six young household leaders that were interviewed were all Bajau Laut and they had no legal documents regarding their status.

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This discouraged their motivation to migrate to look for a job in a nearby town. Unsurprisingly, 65% of the respondents were male as they were the heads of households in the Bajau and Suluk families. The majority of the women living in the park were housewives and they were reluctant to participate in the household survey unless they had no husband or were widows (20 out of 28 female respondents were widows). However, despite the unwillingness of many women to participate in the household survey, 19 of 28 female interviewed during the study were very expressive in sharing their views on livelihoods and their aspirations for the empowerment of women.

Based on the 2010 census by Sabah Parks, there were 247 households comprising 1,619 people living in the park. However, during the fieldwork, it was discovered that the number of households had decreased. Park personnel confirmed the trend of people moving out of the park. Nevertheless, 25 percent of respondents had lived in the park for less than 10 years, which means they arrived after the establishment of the park. Movement in and out of the park is a significant attribute of Bajau Laut people who still practice their traditional nomadic lifestyle. According to interviews with the Bajau Laut respondents, the majority of the Bajau Laut people in Semporna do not stay long in one place if their sources of livelihood decrease, or if they were not welcomed by the owner/heir of the hereditary land/island. If their boats were damaged while sailing, they would have to settle down in nearby islands, or they might want to find a safer place, especially during bad weather.

Descriptions		Frequency	Percentage
Age	17-29 (young)	6	7.6
	30-49 (average)	37	46.8
	50 above (older)	36	45.6
Gender	Male	51	64.6
	Female	28	35.4
Ethnic	Bajau	28	35.44
	Bajau Laut	20	25.32
	Suluk	31	39.24
Islands	Selakan	28	35.44
	Bodgaya	12	15.19
	Boheydulang	5	6.33
	Selakan – Sebangkat reef top settlement	14	17.72
	Maiga	14	17.72
	Sibuan	4	5.06
	Sebangkat	2	2.54

Table 4.1: Demographic characteristic of respondents

From the interviews, it was found that the 28 respondents of Bajau ethnicity represent 179 people, the 20 Bajau Laut respondents represent 145 people, and the 31 Suluk households represent 209 people. Intermarriage between the different ethnic groups is also prevalent: of the total number of interviews conducted, 12 were Bajau-Suluk. Household size is generally large with an average of 6.97 and a maximum of 16 people living in the same house. The majority of respondents was living as a nuclear family and only in some circumstances, such as the death of a husband and/or a father, were the wife and/or children cared for by the older, working children or other relatives (usually the villages in which they were living comprised of their extended families and relatives).

Respondents were interviewed from all the inhabited islands in the park. At the beginning of the fieldwork, a Sabah Parks' officer urged caution since a tragic incident happened in Bodgaya island in 2011 involving park personnel and local resident[9]. However, it was important to include respondents from all islands as each island has its own uniqueness. For instance, Bodgaya offers supplementary livelihoods sources, i.e. fruit and vegetable farms. Sibuan is famous for its white sandy beaches, beautiful coral, and a combination of shallow plateaus and steep slopes suitable for both beginners and professional divers, making it suitable for tourism activities. However, more focus has been given to respondents from Selakan island because it is inhabited by the native Bajau community which is entitled to Native Customary Rights (NCR). Communities in all other islands were living there with permission from the owner/heir of each hereditary island.

4.6 Native customary rights (NCR) entitlement

NCR entitlement is an important variable to consider in this study area and is among the rationale for site selection. There are important relationships between NCR and institutions that promote livelihoods strategies, community participation, and property entitlement, which will need to be examined. Hence it is very crucial in this study to investigate how NCR influences community's participation in institutional arrangements and livelihoods. Based on literature review and secondary data analysis, it is already known that only the Bajau ethnicity are entitled to NCR since they are considered to be natives of Sabah. On the other hand, as a minority group

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[9] According to Sabah Parks officers, that tragic incident had caused the deceased of the park personnel whom was killed in Bodgaya jungle by a Bajau Laut man. According to the source from Sabah Parks, among the factors that contribute to the outrages were revenge and hostility towards park personnel.

in Sabah, most of Suluk people have legal status but many of them do not have NCR because of the status of immigrants after the western colonization. Moreover, the huge numbers of Suluk migrants in recent years, legally and illegally, resulted in tough restrictions being placed on applications for permanent resident status. This is because many legal immigrants have been abusing their legal status to bring their family and relatives from Sulu archipelago to Sabah illegally (RCI, 2014; NST, 2014). This was confirmed during the interviews with Suluk people, many of whom do not have legal IDs but manage to live in Sabah with the help of their family, relatives or friends, who may have legal status. Meanwhile for Bajau Laut, although they may have been in Sabah for a very long time, lack of documents, ID and knowledge has hindered their ability to apply for legal status.

Table 4.2 shows that 100% of Bajau respondents said they are entitled to NCR status, and 100% of Suluk and Bajau Laut respondents said they are not entitled to it. In the household survey, it was discovered that the majority of the Bajau Laut and Suluk lived in TSMP islands with the permission of the owners/heirs of the island who was entitled to NCR or based on the usufruct rights. Some of the owners/heirs lived in Selakan island and many had moved to live in Semporna town and other parts of Sabah and Malaysia. However, although they are entitled to NCR, not many of them actually owned land officially or possessed permanent accommodation (Table 4.3).

	Entitlement		
	Yes	No	Total
Bajau	28	0	28
Bajau Laut	0	20	20
Suluk	0	31	31
Total	28	51	79

Table 4.2: NCR entitlement according to ethnicity

Types of property	Number
Land	0
Hereditary land	23
Hereditary house	28
Temporary house	46
Boat-house	1

Table 4.3: Land or property owned by respondents

All twenty-eight native Bajau respondents in Selakan island are entitled to NCR but, in most cases, the grants for houses or land they occupy belonged to their parents or grandparents who had already died. According to the interviews with most of the related respondents, lack of knowledge of how to transfer the name on the grants to the heir's name is one factor that contributes to the current situation. Furthermore, the process of transferring ownership to a new owner requires all potential owners/heirs to come to a mutual agreement as to whose name should be given e.g. if the father died, the mother and all children must come to an agreement as to who should administer the property (Act 98, revised 2006) and, usually, the responsibility is given to the eldest brother in the family (Subject #024, 2012). This is a complicated process

where lack of knowledge and awareness among family members hinders the process of changing ownership. Therefore, the properties are considered hereditary with rights to the land in TSMP and rights to permit others to settle on the land provided the park authorities are informed. It can be concluded that NCR plays an important role in the rights of TSMP communities to stay in TSMP, and gives an absolute right to the Bajau community and usufruct rights to Bajau Laut and Suluk communities to stay in the park and get involved in park activities since they have land rights.

4.7 Overview of current livelihoods activities and community settlements

Research interviews revealed that each settlement in TSMP, whether houses or boats, is inhabited by people of the same ethnicity. Bajau, Bajau Laut and Suluk live only with their own group comprised of their extended families. However, for Bajau Laut and Suluk, permission to establish a settlement must be granted by the land owners/ inheritors and must also follow Sabah Parks regulations. The owners/inheritors do not necessarily live in TSMP because, for generations, many have moved to Semporna town. The exception is those who live on Selakan island.

Each settlement has a particular environment and ethnicity. For instance, Suluk settlement occurs on Selakan-Sebangkat reef top and Bodgaya island, which are known for their seaweed farms and good soil, respectively. Suluk people have reputations as being good agriculturists and seaweed farmers. On the other hand, Bajau Laut settlements are scattered around TSMP for they are only concerned with access to fishing grounds and are known for their skills in fishing and harvesting other marine sources.

4.7.1 Bajau

Twenty-eight respondents from the Bajau community that were interviewed in this study lived permanently in Selakan island. Selakan is the only island inhabited by the native people that are recognized by the state's Native Laws. According to the elders, the first settlement in Selakan was opened by their ancestors in the 1950s during the Japanese occupation. They had moved from Bodgaya island due to safety reasons when the Japanese occupied the island. Their ancestors' burial ground can still be found in Tetagan island which is connected to Bodgaya island at low tide. The majority of these people are entitled to NCR. Three respondents from Selakan are also entitled to land inherited from their ancestors in the other islands of TSMP. Thus, they are the only group that cannot be displaced or resettled by the park authority due to legal land entitlement. However, so far, the NCR status has not brought them many economic benefits from park establishment or any development activities.

Many interviewees suggested that fishing was the main livelihoods activity before park establishment. However, after the park was established, due to inconsistent zoning and regulations, many have found alternative livelihoods, such as working on seaweed or fish farming. Table 4.4 shows the livelihood activities undertaken by the Bajau respondents in Selakan island. The housewife group comprises the highest percentage of Bajau as 13 of the 45 households in Selakan were widows or single mothers. All of the housewives interviewed were heads of households depending on government assistance or help from relatives. In other circumstances, it is difficult to get women to complete household surveys since men

dominate the household affairs. Eleven of the 14 women interviewed in Selakan were housewives and three were involved in craft making, such as clay stoves, earthenware dishes and pottery. Jabatan Kraftangan Malaysia, a government department responsible for the promotion of craft-making as a side income for women in Malaysia, is actively encouraging women in Selakan to become involved in craft-making to enhance their livelihoods. They are targeting participation from single mothers and widows. Courses are conducted frequently but participation of women in Selakan is very low. The three respondents involved in craft-making were 50 years of age or older and all the younger women respondents indicated that they had no interest in craft-making.

Livelihoods activities	Frequency (N=28)	Percent	Percent of total (of all ethnics)
Fishing	9	32	23
Seaweed Farming	9	32	23
Gardening	1	4	8
Operating tuckshop	2	7	40
Housewife	11	39	85
Craftsman	4	14	100.0
Others (work in nearby town)	3	11	33
Total	39	100	

Table 4.4: Livelihoods activities of Bajau respondents

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The proportion involved in fishing is relatively low in comparison with the Bajau Laut (23% compared to 45%) as many people in Selakan have stopped fishing as their main livelihood since park establishment. Similarly, the proportion involved in seaweed farming is low compared to the Suluk (23% compared to 56%). One of the reasons for this situation is that people in Selakan, as recognized citizens, have many livelihood options. Although there are not yet any alternative livelihoods provided by park management, being natives and recognized as citizens provide local people in Selakan with the opportunity for them to take their own initiatives. The Department of Fisheries (DoF), a government department responsible for enhancing fishermen's livelihood status, is the most important stakeholder in Selakan for fishing and seaweed farming, The department has its own station in Selakan with one permanent officer (a local Selakan man). A variety of fisheries projects have been offered to the Selakan community to raise their living standard, including boat and engine subsidies and mariculture projects such as seaweed and fish farming (Interviewees, 2012). Moreover, a successful seaweed-farming project in collaboration with Universiti Malaysia Sabah (UMS) provides another alternative, especially for younger generations in Selakan island (Subject SH07, 2012). In addition, running tuck shops, craft production and migration are other sources of livelihood. From interviews with local people and other stakeholders, it was found that apart from two respondents, there also some people in Selakan work with government agencies such as Sabah Parks, DoF and the District Office. The fact of having legal citizenship status distinguishes the Bajau from the Bajau Laut and Suluk communities in terms of opportunities and entitlements.

Figure 4.4: Seaweed processing station at Selakan Island. Workers are made up of the younger generation of Selakan community and supervised by UMS staff.

4.7.2 Bajau Laut

Twenty Bajau Laut respondents were interviewed during the fieldwork. The number of Bajau Laut decreased substantially from 2010 to 2012. In Sabah Parks' 2010 census they numbered 843 people but this was reduced by more than half by 2012. There were 32 households with 208 people living in the Sibuan islands in 2010; however, this had decreased to only 7 households with about 40 people. Similarly, 353 Bajau Laut people lived in Bodgaya island in 2010, but it was estimated that there were only about 100 people left in 2012. The local people of Semporna did not regard this as being unusual. The Bajau Laut people adhere to their traditional nomadic lifestyle and they move to find a better place when things are not good for them. According to a Sabah Park officer, the inbound and outbound movement of Bajau Laut groups to and from

TSMP would make no difference in terms of park management because if some groups leave the park, others will come in. However, Bajau Laut elders agreed that the greatly decreased number of Bajau Laut people living in TSMP is directly caused by the park's restrictions on fishing without providing alternative livelihood options (Subject #032, Subject #040, Subject #055, 2012).

Table 4.5 shows the livelihood activities of Bajau Laut respondents and their settlement locations. Unsurprisingly, 90% of Bajau Laut respondents indicated fishing as their main livelihood in spite of the park's restriction on fishing[10]. This compares with an average of 45% for the three ethnic groups. Eight respondents engaged in seaweed farming, suggesting that a change is occurring in traditional livelihoods. Three respondents in Bodgaya engaged in gardening while three operated a tuck shop (one in each of Bodgaya, Maiga and Sibuan). The 'others' category included one respondent who was a middleman for Bajau Laut communities in Bodgaya to trade their catches for money or groceries, the middleman selling the catch in Semporna town. The Bajau Laut communities respected his work as a middleman as he made it easier for the Bajau Laut to get household necessities without the need to go to the town. All twenty respondents of Bajau Laut do not have a legal ID and are reluctant to go to town for fear they might been caught by the authorities.

The majority of Bajau Laut settlements in TSMP are in Bodgaya and Maiga. Bajau Laut settlements can also be found in Sibuan island but the number has contracted from 32 households

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[10] Despite of park's restriction on fishing, no alternatives livelihoods were provided for the people of TSMP until now (Fieldwork, 2012). Unlike Bajau people in Selakan island, stateless Bajau Laut are not entitled to any government assistances and they are not possible to find any other jobs in nearby towns.

in 2010 to 7 households in 2012. The rest of the households have moved to Maiga and Bodgaya due to park restrictions in Sibuan: the park is promoting Sibuan island as a dive/tourist destination with weak promotion concerning the cultural uniqueness of the Bajau Laut lifestyle. Ironically, interviews with the remaining Bajau Laut in Sibuan island revealed that they were permitted to stay on the island because they had unpaid work duties: cleaning the island every Friday and as a cultural display for tourists interested in the traditional lifestyle of the sea nomads.

Livelihoods activities	Frequency (Total N=20)	% of total (of all ethnics)	Islands						
			i	ii	iii	iv	v	vi	vii
Fishing	18	45	0	0	6	1	7	4	0
Seaweed Farming	8	21.5	0	0	1	0	7	0	0
Gardening	3	25	0	0	3	0	0	0	0
Tuck shops	3	60	0	0	1	0	1	1	0
Others	3	33.3	0	0	1	0	1	1	0
i= Selakan; ii= Sebangkat; iii= Bodgaya; iv= Boheydulang; v= Maiga; vi= Sibuan; vii= Sebangkat-Selakan reef top settlement									

Table 4.5: Livelihoods activities of Bajau Laut respondents and their settlements

Figure 4.5: Bajau Laut temporary settlement at Selakan island.[11]

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[11] They were given permission by the *Panglima* (chief leader) of Kg. Selakan to build their temporary settlement there as a courtesy. According to the Panglima, traditionally, the area used to accommodate a few Bajau Laut families who sometimes worked for Selakan villagers in seaweed farming or fish farming.

Figure 4.6: Dried fish, sometimes salted, are among the products from fishing activity of Bajau Laut communities

4.7.3 Suluk

In Semporna, Suluk is one of the significant ethnic groups and is comprised of legal and illegal immigrants. Their number is not recorded in the state's census as they were included as 'others' in the section on ethnicity. However, it was estimated that about 11,000 Suluk people lived in Semporna (Statistik Sabah, 2010). Particularly in TSMP, Suluk people were initially brought in by the seaweed company to work in their farm. Their number was reported as 360 people in 2010 however, based on the fieldwork in 2012, they had increased gradually, especially in the Sebangkat-Selakan reef-top settlement, where the largest seaweed farming area in Malaysia is found (SREP Group Chairman, 2012). The majority of people here are Suluk. Their number has not been surveyed either by Sabah Parks or by the census department of the district office. However, the community has grown as many Suluk communities work on their own seaweed farms. Although they are not entitled officially to work seaweed farms in TSMP, many worked

either legally or illegally on their seaweed farm long before park establishment having been granted permission from the local owner/heir of TSMP islands.

Based on interviews and observations, it is concluded that Suluk people are gifted with farming skills on both land or on the sea. This is why the seaweed farming company hires many Suluk people as their farmers. Based on Table 4.6, Suluk communities show the highest percentage of all ethnic groups for seaweed farming and gardening, i.e. 56.4% and 66.7% respectively. Their settlements are largely on Sebangkat-Selakan reef-top settlement (for seaweed farming) and Bodgaya island (for fruit and vegetable gardening). A respondent who had a mango garden behind his house in Bodgaya island explained that, during the fruit season, he could get almost RM1,000.00 (about CAD$322) in a month, which is relatively high for people living in the islands compare to an average of RM200 (CAD$65) per month.

Livelihoods activities	N (Total N=31)	%of all ethnics	Islands						
			i	ii	iii	iv	v	vi	vii
Fishing	13	32.5	0	2	4	1	1	0	5
Seaweed Farming	22	56.4	0	2	0	0	6	0	14
Gardening	8	66.7	0	0	5	3	0	0	0
Housewife	2	15.4	0	0	0	1	0	0	1
Others	3	33.3	0	1	1	0	0	0	1
i= Selakan; ii= Sebangkat; iii= Bodgaya; iv= Boheydulang; v= Maiga; vi= Sibuan; vii= Sebangkat-Selakan reef top settlement									

Table 4.6: Livelihoods activities of Suluk respondents

However, since the establishment of the park, gardening has been prohibited in TSMP islands. Many locals have argued about the new regulations since some of them depend on their

garden as a source of income and have been working a garden for generations. Based on tolerance and discussion with the park authority, only existing gardens are now allowed to be worked provided that the area is not expanded.

Figure 4.7: Coconut and banana garden in Bodgaya island run by a Suluk family.

Figure 4.8: Suluk settlement at Sebangkat-Selakan reef. Their seaweed farm is immediately in front of their houses (plastic bottles are used as buoys to mark the rows of seaweed plants).

4.8 Overview of park's management plan regarding livelihood diversification and its implementation

One of the main objectives of the park is to create a sustainable source of income for local people. According to the study conducted before the establishment of the park, livelihoods can only be safeguarded if the marine environment is protected, sustainable use of natural resources is promoted and environmentally-sensitive development is encouraged (SIP Management Plan, 2001). This is definitely the case in Semporna especially in TSMP, where fish bombing and irresponsible harvesting is prevalent. Among the initiatives identified for safeguarding livelihoods are employing local people to work with the park, creation of an ocean nursery for giant clams, abalone and sea cucumbers, and ecotourism development. Unfortunately, none of these plans were working successfully at the time of research.

Only one of the Sabah Parks staff was from TSMP. There was a proposal to employ local people, especially from Selakan island, as park rangers since the number of rangers was low with only five rangers to cover a 35,000 ha ocean area. During an interview at Sibuan Island, a ranger complained that they could never manage to control fish bombing with their current capacity (people, facilities, logistics etc.). He added that their lives were always at risk when patrolling the park. The manager agreed that they should hire more local people and a proposal had been presented to the higher management level, but the decision was pending when the research was conducted.

The commercial production of giant clams, abalone and sea cucumber project was still under development at the Sabah Parks station in Boheydulang island. Research on a giant clams hatchery had been going on since the park was gazetted but implementation had not occurred. According to the research officer, the projects had not yet produce desirable results. The hatchery required further development before the community could take over commercial production.

Ecotourism, as potentially one of the most suitable forms of economic development for TSMP, has not been implemented seriously in the park. The park has yet to charge fees for visitors although the number of visitor is increasing. Many diving operators conduct diving courses at Sibuan island. Tour operators include Sibuan and Mantabuan islands as snorkeling and diving destinations for tourists and the number ranges between 30-40 people per day during the peak season. From observation, there were two abandoned construction sites on the islands in TSMP. From interviews, it was learned that the sites were built by a tour operator to develop small-scale resorts. However, local people protested because parts of the sites were under native

title. The abandoned projects were found in Sibuan and Maiga. The former has no official grants but some local people claimed that they had inherited the land from their great grandparents and that they had claimed the land under native title. The latter has six land grants under native title. Lack of communication and discussion between the park authority and local communities contributes to the problem, especially in Sibuan, and hinders ecotourism development in TSMP.

4.9 Summary

This chapter provided an overview of TSMP, outlining the environment, demography and livelihoods of the study area. Environmentally, TSMP has special biophysical properties and historical conservation work has led to the establishment of TSMP. However, park establishment affects communities who have been living there for generations, while some are natives with traditional rights and some have issues regarding citizenship. As the researcher became immersed in the community study, she became increasingly sympathetic to the plight of those living in the park and it is possible that this introduced bias into the study. It is important to acknowledge the need for conservation as well as the needs of the communities that depend upon the resources in and around the park.

An overview of the historical and socio-cultural of the Bajau, Bajau Laut and Suluk communities is necessary to understand their livelihood strategies. The term 'livelihood' is different from the word 'job', although their ultimate pursue is to support well-being. When studying livelihoods, we are examining the ways, or strategies, that people use to survive. Livelihoods encompass lifestyle and traditions. To understand current livelihoods, it is necessary

to understand the historical, social and cultural events that take place in an individual or community's life.

The overview also provides an understanding of what make the Sama-Bajau a group and what make them different today than in the past. Additionally, it is explained that the ethic status of the Suluk ethnic group has been widely misinterpreted as immigrants although, historically, they have been the masters of Sabah. The historical overview describes the chronological events that have resulted in the current livelihoods of the Bajau, Bajau Laut and Suluk communities.

An overview of the local geography, demography, NCR entitlement, and livelihood activities was provided for each of the three ethnic groups in the area. Through comparison of these characteristics for each ethnic group, it is possible to appreciate the context from which the local residents select their livelihood strategies and the limited options that are available to them. Similarly, through comparing the various strategies adopted by different communities in TSMP, a foundation has been established for the next chapter, which will examine the impact of park establishment on the livelihoods and overall well-being of the TSMP communities. Further analysis has been undertaken to understand the contexts that differentiate people's coping strategies and, in particular, the ways in which institutional structures and processes, including NCR, play an important role in determining the sustainability of communities' livelihoods.

Chapter 5

TSMP establishment in a livelihoods context

5.1 Introduction

Previous chapters described the historical, socio-demographic, livelihoods, and NCR information that underpins the following discussion. This information is useful in understanding how communities view park establishment, their vulnerability and coping strategies, and how ecotourism activities are perceived. Rights to participate and involvement in the acquisition of benefits and in the decision-making process will also be discussed in this chapter. In order to investigate the consequences of park establishment from the perspectives of the communities, a livelihoods analysis is performed. A SL approach provides a more clear focus that is easier to observe, describe, quantify and discuss than sustainable development more generally conceived (Tao and Wall, 2009). The interactions between economic, social, environmental and institutional issues are linked within a livelihoods context. Data on current and past livelihoods activities are examined, as are perceptions of and opinions about livelihoods after park establishment, including the changes that have occurred since park establishment, the challenges faced, community assets, vulnerability, and coping strategies.

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5.2 Park establishment from the communities' perspectives

In order to investigate the impact of park establishment on communities, it is crucial to analyze attitudes towards the park. Statistically, Figure 5.1 shows the attitudes of interviewed households (N=79) about park establishment.
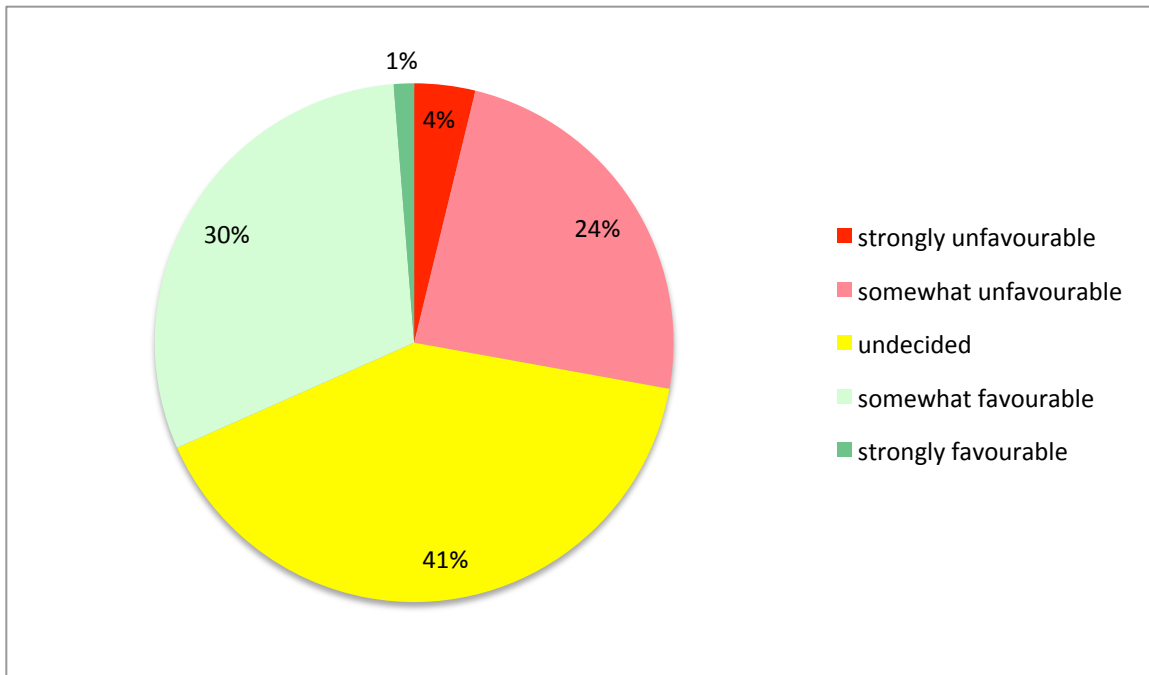
Figure 5.1: Attitude toward park establishment.

A substantial proportion (41% of respondents (n=32)) were undecided, 24% (n=19) were strongly unfavorable and, and 30% (n=24) were somewhat favorable towards park establishment. Thus, there is a wide variety of opinions about park establishment. However, the percentage of respondents that answered 'undecided' is higher than for the other answers. In contrast, when asked about their opinions in an open-ended question, almost all (almost 99%) respondents gave negative responses that included decreasing livelihoods outcomes and marine resources, and a

hostile relationship between people and the park authorities, as outlined in the responses that follow:

> *"Our lives have become so miserable with the new rules imposed by Sabah Parks. Our income has decreased substantially and no alternative livelihoods have been provided by Sabah Parks."* (Subject #024)

> *"Sabah Parks is being so strict with us. We can negotiate (about access to the fishing zone) if they want to talk with us, but they won't. If they do not want to negotiate about giving access to the fishing zone, please provide another alternative. We suffered a lot before park establishment, and now it is even worse."* (Subject #007)

	Sum of Squares	df	Mean Square	F	Sig.
Between ethnic groups	12.440	3	4.147	6.131	.001*
Within groups	47.344	70	.676		
Total	59.784	73			

*The mean difference is significance at $p<0.05$

Table 5.1: One way ANOVA test revealed significant differences between ethnic groups

In order to understand why the answers to the closed and open-ended questions were so different, further analysis was performed, particularly with respect to ethnicity for, as indicated in the preceding chapter, the different ethnic groups pursue different livelihood activities and lifestyles. Accordingly, an ANOVA-ONE WAY test was conducted to determine if significant differences exist between the mean scores of the ethnic groups. It was found that significant differences do exist (Table 5.1).

Ethnicity	Ethnicity	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Bajau	Bajau Laut	-.804[*]	.258	**.014**	-1.48	-.13
	Suluk	-.955[*]	.244	**.001**	-1.60	-.31
Bajau Laut	**Bajau**	.804[*]	.258	**.014**	.13	1.48
	Suluk	-.151	.279	.948	-.89	.58
Suluk	**Bajau**	.955[*]	.244	**.001**	.31	1.60
	Bajau Laut	.151	.279	.948	-.58	.89

*The mean difference is significant at the p<0.05 level. Tukey HSD test.

Table 5.2: Post hoc test to determine which group is significantly different from the others

In order to tell which group differed most from the others in terms of their responses, a post-hoc test was undertaken. Table 5.2 shows that the mean difference for Bajau is significantly different when compared to the Bajau Laut and Suluk (p = 0.014 compared to Bajau Laut, p = 0.001 compared to Suluk). This indicates that the answer given by the Bajau differed more than the answers given by the Bajau Laut and Suluk who are similar in their responses. The means plot graph (Figure 5.2) shows that Bajau respondents are dominant in expressing a negative attitude towards park establishment (mean=2.57, somewhat unfavorable) whereas the means for the Bajau Laut (mean= 3.38) and Suluk (mean=3.53) fall between undecided (mean=3.0) and somewhat favorable (mean=4) (Figure 5.2) [12].

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[12] Likert-type questions fall in the ordinal measurement scale. However, many Likert-type questions in this study when combined, measure a personality trait and attitude, and the data should be analyzed at the interval measurement scale in order to know the differences between values (Boone and Boone, 2012). Additional data analysis procedures appropriate for interval measurement such as the post-hoc test and one-way ANOVA are used to further describe the data findings.
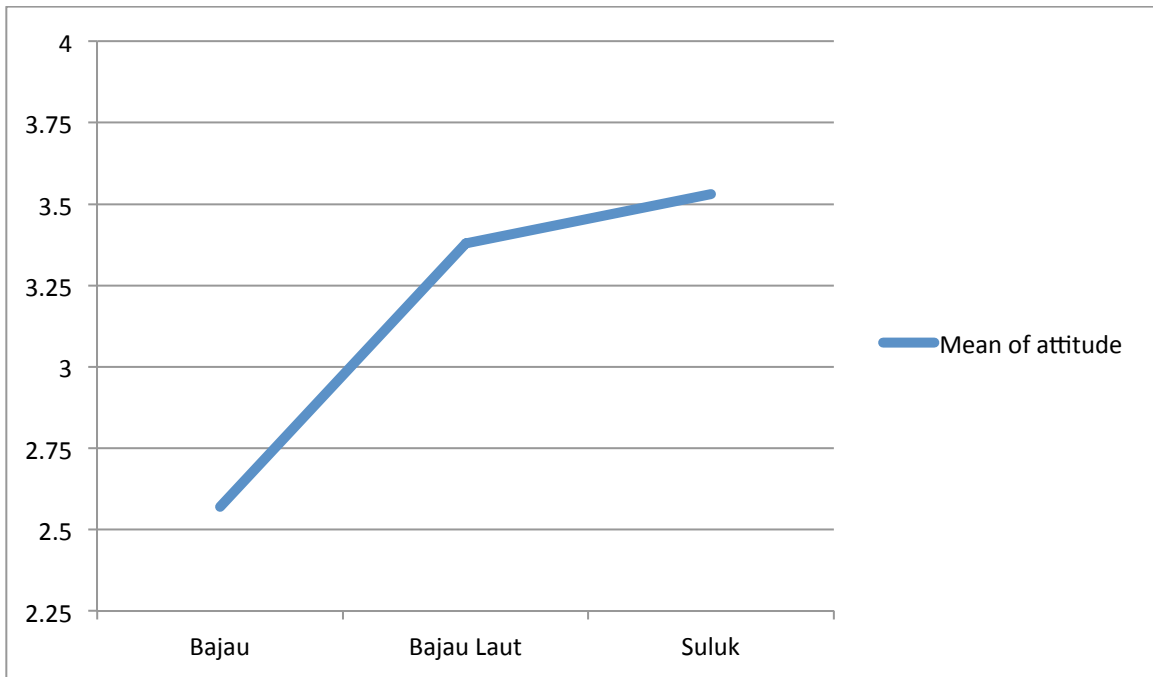
Figure 5.2: Mean of attitude toward park establishment

A similar pattern was found in every question that asked for opinions or perceptions using closed questions. The reasons for the negative perceptions included deterioration of livelihoods (income, activities, no alternatives provided) (37%) and tensions with the park authority (40%). A Bajau respondent commented on this situation as follows:

> *'There are huge impacts of park establishment on our livelihoods. Fishing is our life and now fishing is not good. Our life is not good. The negative impacts overshadowed the positive impacts that the park wants to bring. The short-term assistance from government is not enough to survive. Sabah Parks has done absolutely nothing to assist us. If we knew this would happen, we would never have approved park establishment'* (Subject #009)

Given such strong statements, the large number of 'undecided' respondents, mostly Bajau Laut and Suluk, may seem to be odd. It likely relates to the perceived 'right to say no' reflecting differences in entitlement status. Many Bajau possess NCR status and, hence, feel that they have

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the right to express their opinions. In contrast, according to Saat (2003), the Bajau Laut still live their traditional lifestyle which results in low social status, making them a socially marginalized and politically vulnerable group. In such a situation, it was hard to get the Bajau Laut to voice an opinion and, most of the time, they answered 'I don't know' or 'I don't bother', lifting their shoulders or shaking their head. One answer that was stated repeatedly by this socially marginalized group was '*ikut saja,*' which means 'just follow (what people ask them to do)'. On the other hand, they frequently indicated in their supplementary comments that they do not like the park's rules and restrictions. In contrast, although park restrictions have had a negative impact on the livelihoods of the Suluk community, nevertheless they were grateful that they were not being displaced or being sent back to the Philippines. They worked hard to get permanent resident status and to prove their independence by working on seaweed farm and gardening. In these ways they were able to survive in a foreign land.

Although livelihoods had deteriorated, a small minority (8%) of respondents agreed that park establishment had brought benefits in terms of conservation (reduced fish bombing) and safety (reduced piracy and invasion by illegal immigrants). It also shows that some people were aware of the deterioration of the marine ecosystems. They were also concerned about their safety since the Semporna waters are known to be a gateway for illegal immigrants to come to Malaysia. Also, a kidnapping syndicate operating from the southern Philippines targets tourists and rich people. The feedback suggests that conservation improvements and enhanced safety are positive outcomes of park establishment that are acknowledged by some.

Table 5.3 shows the results from a one-way ANOVA test to determine if there is a significant difference between genders. Sixty male respondents and nineteen female respondents were involved in this survey. No significant differences were found. A graph of means shows that the mean for male respondents is 3.10 and that for female respondents is 3.14 (Figure 5.3). One of the reasons for the similarity of answers between genders is that women usually listen to the men in the family (i.e. husband, father, elder brother etc.) and, culturally, a man represents the family on most occasions. Nevertheless, 19 female respondents participated in the survey and one participatory event was conducted successfully for women participants. The data collected during this event enriched the household survey data, especially in terms of women's opinions and aspirations for empowerment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Gender	.036	1	.036	.044	.835*
Within Gender	63.938	77	.830		
Total	63.975	78			

*the mean difference is significant at p<0.05.

Table 5.3: One-way ANOVA test showing no significant difference with gender
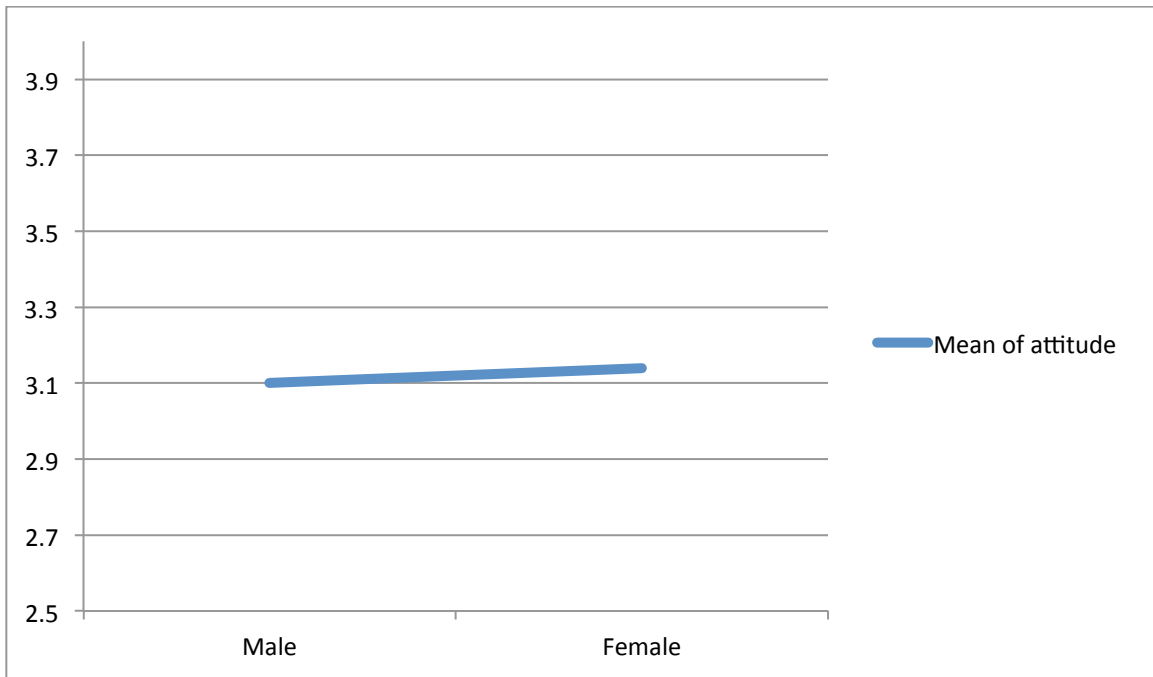
Figure 5.3: Mean of attitude toward park establishment

5.3 Current status of livelihoods and changes before and after park establishment

When asked about their livelihood activities, the responses obtained were consistent with those reported in the preceding section. Based on Figure 5.4, almost half (47%, n=37) indicated that their livelihood activities had not changed in any way, although 30% said that their livelihoods activities and income had decreased substantially. One tenth (9%, n=7) suggested that the question was not applicable to them as they were mostly women who were basically housewives. For Bajau and Bajau Laut, men are the head of the family and are expected to be the breadwinner. In the Suluk community, women also help in seaweed and gardening activities. Only 4% (n=3) said that their livelihood was currently good and they engage in alternative livelihood activities, such as running a small business, fish farming or operating their own seaweed farm.

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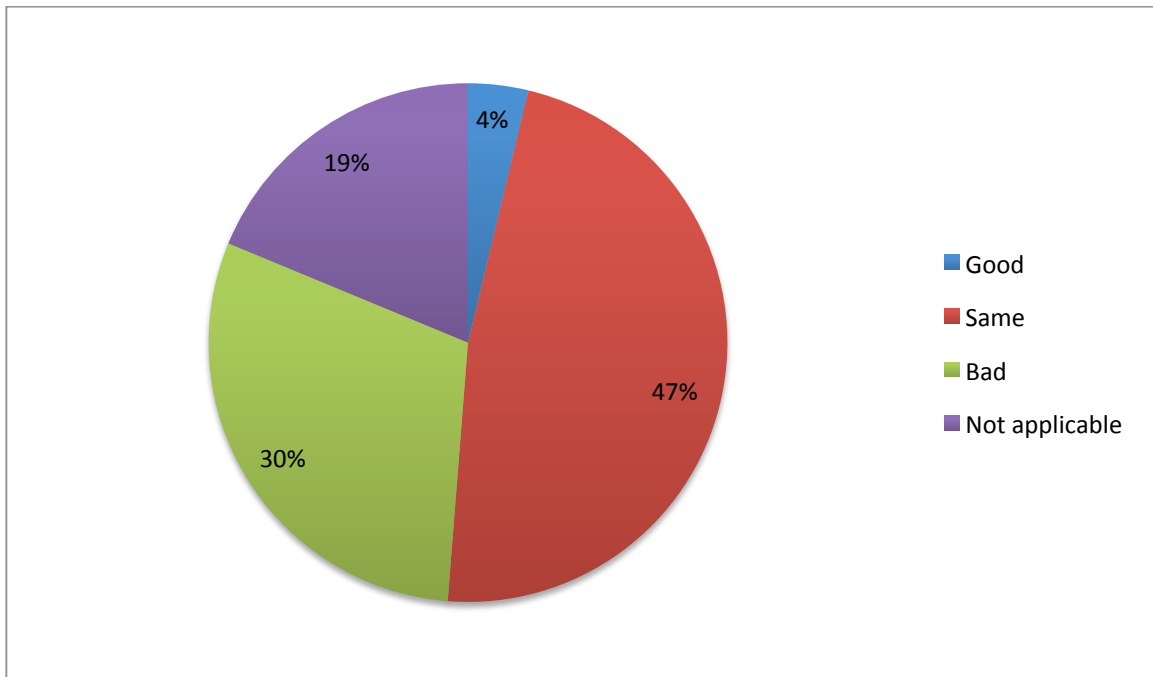
Figure 5.4: Current status of existing livelihoods activities

Figure 5.5 indicates that approaching a half (43%, n=34) believed that there had been few changes in their circumstances in the preceding ten years, whereas 37% (n=29) perceived negative changes and 20% (n=16) said there had been positive changes. Again, the negative evaluations reflect livelihood deterioration due to fish bombing, poor seawater conditions, adverse affects of zoning and reduced accessibility to the fishing area, and unequal distribution of benefits. The positive perceptions again encompass increased safety, benefits from conservation and increased government assistance.
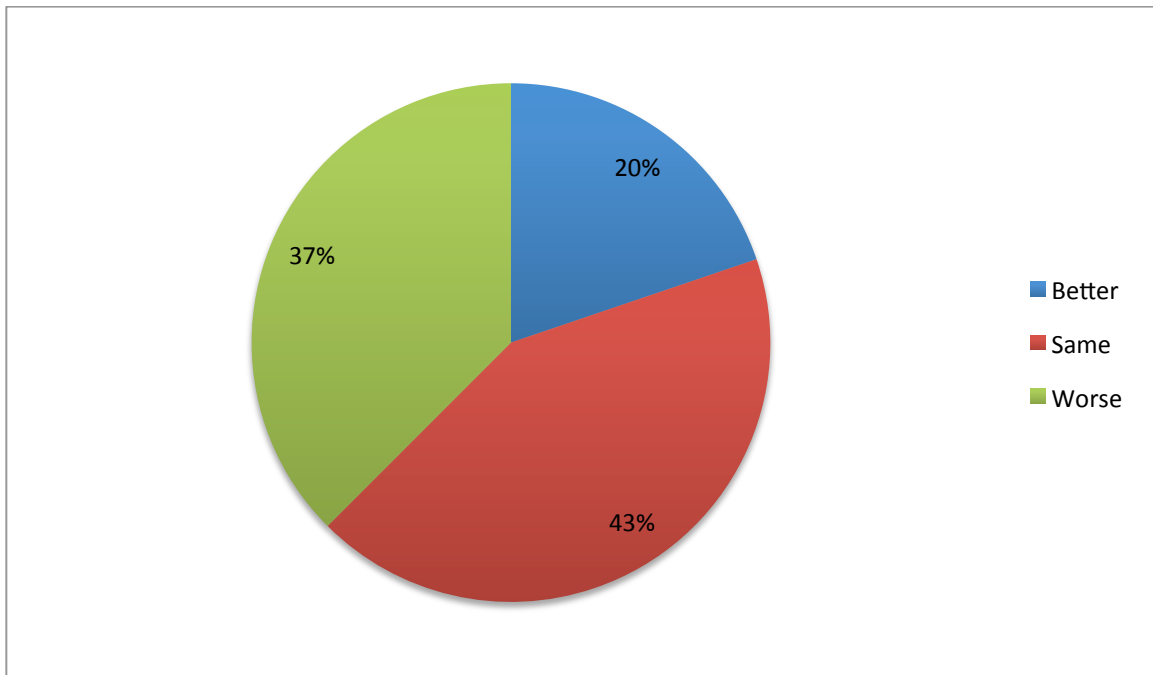
Figure 5.5: Changes perceived in the past 10 years

As before, further analyses were undertaken in search of possible difference between the ethnic groups. Once more, according to one-way ANOVA and the post hoc test (Table 5.4 and Table 5.5), significant differences were found in association with ethnicity: Bajau respondents were more vocal in expressing opinions/perceptions than Bajau Laut and Suluk who were more reserved in their responses. Again, most of Bajau Laut and Suluk respondents answered 'I don't know', 'nothing', or 'the same' when asked for their opinions in Likert-type questions. Interviews and open-ended questions resulted in more revealing responses. For example, Bajau Laut and Suluk respondents expressed their views as follows:

> *'I never agreed with the park establishment. But we are Bajau Laut. We have no rights to say no because we have not acquired a legal document. We are afraid of being displaced. At the end of the day, we do not care anymore about the park.'* (Subject #050)

'Our lives have always been difficult. Before, after (park establishment), the same. Nothing more we can do except to go on.' (Subject #026)

'We were thankful to the Malaysian government for accepting us here. We do not want to go back to the (southern) Philippines. Life is even worse there: you can get killed easily. We feel safe here. (Subject #072)

As before, Bajau people with NCR were more vocal in expressing their opinions than the socially marginalized Bajau Laut with no entitlements. The Suluk were once recognized as a superior group in the Sulu-Sulawesi Sea, but their status as immigrants, both legal and illegal, undermined their right and willingness to express their feelings.

		Sum of Squares	df	Mean Square	F	Sig.
Better	Between Groups	.761	2	.380	2.538	.086
	Within Groups	11.391	76	.150		
	Total	12.152	78			
Same	Between Groups	.033	2	.016	.064	.938
	Within Groups	19.335	76	.254		
	Total	19.367	78			
Worse	**Between Groups**	**4.590**	**2**	**2.295**	**11.804**	**.000**
	Within Groups	14.777	76	.194		
	Total	19.367	78			

*The mean difference is significant at the p<0.05.

Table 5.4: One-way ANOVA test showing differences with ethnicity

Dependent Variable	(I) Ethnic_3	(J) Ethnic_3	Mean Difference (I-J)	Std. Error	Sig.
Better	Bajau	Bajau Laut	.221	.113	.131
		Suluk	.192	.101	.144
	Bajau Laut	Bajau	-.221	.113	.131
		Suluk	-.029	.111	.963
	Suluk	Bajau	-.192	.101	.144
		Bajau Laut	.029	.111	.963
Same	Bajau	Bajau Laut	-.029	.148	.980
		Suluk	.023	.132	.983
	Bajau Laut	Bajau	.029	.148	.980
		Suluk	.052	.145	.932
	Suluk	Bajau	-.023	.132	.983
		Bajau Laut	-.052	.145	.932
Worse	**Bajau**	**Bajau Laut**	**.543***	**.129**	**.000**
		Suluk	**.474***	**.115**	**.000**
	Bajau Laut	Bajau	-.543*	.129	.000
		Suluk	-.069	.126	.848
	Suluk	Bajau	-.474*	.115	.000
		Bajau Laut	.069	.126	.848

*The mean difference is significant at the $p<0.05$. Tukey HSD test.

Table 5.5: Post-hoc test to determine which group is significantly different from the others

5.4 Communities' vulnerability context

According to the SLF (please refer Figure 2.3), shocks, seasonality, adverse trends and cultural context are factors that influence vulnerability. Park establishment can be viewed as being a shock, especially when local communities were forced to modify their traditional lifestyles once the park was gazetted. In this sense, the park's regulations contribute to the vulnerability context. Since no alternative livelihood opportunities have been provided by the park authority, the communities have been torn between following the park's regulations, which diminishes their

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livelihoods, or going against the park regulations and risking penalties. Based on the previous discussion, it is clear that TSMP communities depend heavily on fishing and seaweed farming as their main livelihood activities. Therefore, when asked what they fear most, they agreed unanimously that the park's regulations are their biggest enemy. Almost all (90%) agreed that if the park provided access to alternative livelihoods, they would be less vulnerable to regulations. Although seaweed farming is allowed, the fees and some rules hinder wider involvement. Some respondents, especially older informants, said that they were not familiar with seaweed farming because fishing had been their life. The enforcement of a seaweed-farming fee to be paid to Sabah Parks was another significant event that occurred after park establishment. This initiative was not agreed to because some had been planting seaweed long before the area was gazetted as a park.

The development of mechanisms to govern property rights in the ocean is still in its infancy in Malaysia, especially in Sabah. Many locals, especially in Selakan, felt betrayed and that their rights had not been honored as they now have been made to feel that they are on other people's land. They argued that if they were entitled to NCR, the seaweed farm should be included as their 'garden', just as native title to the garden and housing area was retained in terrestrial areas once the park was gazetted. Most respondents said that the RM100 (CAD30++) annual fee is a big burden for them since their household income fluctuates and ranges from RM200 - RM400 (CAD66 – CAD133) per month, which is below the poverty line of Sabah State's poverty guidelines (household income below RM1,080 (CAD360)). This fee is not applicable to most Suluk and Bajau Laut farmers since they work for the islands' heirs.

However, indirectly, it affects their opportunity to work since some of the NCR holders are not able to open a seaweed farm by themselves and have surrendered their farm to a bigger company.

Weather is also a big worry that may be exacerbated by climate change. More than a quarter (28%) of respondents said that monsoon season from November to March (especially December and January) is the most difficult time since they depend on fishing as their source of livelihood and fishing is dangerous then. A third (35%) of respondents said that their most difficult time is during the dry season (April to May) because the seaweed will not grow properly then and dies. Although the weather is seasonal, people can alternate livelihood activities between fishing and seaweed farming, but park regulations may prevent this, causing deprivation. According to the interviews, respondents said that after park establishment, many of them had difficulties in sustaining their livelihoods. Before park establishment, people would go fishing or depend on the produce of their garden if seaweed farming was not working well, especially during the dry season, seaweed disease outbreaks, times with low prices, or if they had to wait a long time before the seaweed was ready to be harvested. Since fishing is restricted and gardening is prohibited, they were left with no alternative but to leave their villages to work in nearby towns or in peninsular Malaysia. However, Bajau Laut people cannot leave the sea since they have no legal ID and they resort to continuously harvesting marine resources in order to survive (Fieldwork, 2012).

In summary, findings concerning attitudes towards the park (Figure 5.1), perceptions of their livelihoods status (Figure 5.4) and perception concerning livelihood changes over the

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preceding ten years (Figure 5.5) were related and showed a similar pattern of responses. Basically, Bajau Laut and Suluk were reluctant to respond to Likert-scale questions and commonly gave neutral responses reflecting their perceived legal status. However, they were more able to state their concerns in other data acquisition formats. On the other hand, Bajau, who often had NCR, were more willing to state an opinion but they, too, commonly held negative perceptions towards the park.

5.5 Institutional background and management framework of TSMP

Table 5.6 summarizes the institutional background and management framework of TSMP that will be discussed further in the next sections.

MPA TYPE	IUCN CATEGORY II
MANAGEMENT AUTHORITIES	Sabah Parks under the Sabah's Ministry of Tourism, Culture and Environment
GOVERNING LEGAL INSTRUMENTS	The Parks Enactment No 6 of 1984**
PURPOSE	Preservation of areas which contain significant geographical, geological, biological or historical features as national heritage for the benefit, education and enjoyment of the people of Sabah
PROHIBITED ACTIVITIES	Four zoning schemes: 1. Buffer zone: This zone is open to fishermen and visitors. Capture of pelagic species using long lines and lift nets is allowed under permit, as is the passage of boats up to a certain size 2. General use zone: Legitimate park residents will be allowed to harvest natural resources under permit, using accepted methods and gears. Non-extractive activities such as cultivation, mariculture and recreation will be allowed under permit, provided the impact assessment is satisfactory. 3. Sanctuary zone: This is a no-take, limited use zone. No form of fishing, harvesting or removal of any natural resources (dead or alive) is permitted, with the exception of species (e.g. crown-of-thorns starfish) that might be posing an environmental

	threat. A limited amount of recreation will be allowed under permit, provided the impact assessment is satisfactory. 4. Preservation zone: These are no-take, no-visit areas, except for limited research conducted under permit.

**State Parks are normally established on State land. TSMP is a special case because it includes State Land, land with Native Titles and land claimed under Customary Rights.

Table 5.6: Summary of institutional background and management framework of TSMP (SIP Management Plan, 2001)

5.5.1 Current arrangement of TSMP

Currently, the Sabah Parks Board of Trustees, also known as Sabah Parks, a government agency under Sabah's Ministry of Tourism, Culture and Environment, manages TSMP. Sabah Parks was established in 1964 and has now gazetted eight parks in Sabah with a total area of 317, 654 hectares. The headquarters of Sabah Parks is located in Kota Kinabalu on the west coast of Sabah, and has branch offices located at each gazetted park. TSMP was gazetted after an intense study called The Semporna Island Project (SIP) led by the Marine Conservation Society (MCS) (UK) and Sabah Parks. The initial management objectives of the park gave significant priority to benefits for local people and the environment. The conservation framework was properly designed in the interest of all users, especially the TSMP community. Co-management was proposed to manage the park. However, unfortunately, until now, after nine years of establishment, Sabah Parks is still hesitating to implement the framework and has doubts about the co-management regime due to conflict with the park's communities (Subject #SH09, 2012).

About 30 people work for TSMP in the branch office in Semporna. They are divided into a number of sections: 1) operation and enforcement; 2) research; 3) community; 4) administration. The Manager holds the highest rank in the TSMP management team and, at the

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time when the fieldwork was undertaken, he had just resigned due to a prolonged illness. The Community Department of the management team is only responsible for managing seaweed production and other aquaculture activities that involve issuing fees and permits. The researcher interviewed the Acting Manager who was also responsible for a few other parks in Sabah and was on study leave in Indonesia. Fortunately for the researcher, his study site was also at TSMP and he was there temporarily for a site visit. Since he had just been appointed as the Acting Manager and was also on study leave, he was only in Semporna occasionally. In this situation, it is not surprising that he indicated that he lacked knowledge about the park and did not have current or in-depth information, especially about the community.

According to the interviews with a park official, only a few staff and rangers are originally from Semporna and only one of them is from Selakan island in TSMP. As a result, many officers that were interviewed suggested that they possessed little knowledge regarding the historical, cultural and social contexts of the park. However, officers exhibited more knowledge regarding environmental issues. When asked about the community, many of the officers answered with comments that showed lack of knowledge about the community and lack of involvement of the community in the park's activities:

> *"I am not sure how many of them there are now. The last time we conducted a survey was in 2010 and I believe the number has changed since then. I don't have the exact figure now."* (Subject SH09)

> *"It is hard to determine the number since the Bajau Laut people come and go at any time."* (Subject SH04)

> *"We have a communication problem with the TSMP community. It is hard to develop the park, especially when we have unsettled land issues."* (Subject SH05)

When asked about co-management, the Acting Manager responded that the idea of appointing people as park rangers from TSMP communities had been discussed at the park level; however, since the park is under state administration, all appointees must be approved by the state's leaders and supported by Sabah Parks' Board of Trustees. This process is cumbersome since most of the top-level decision makers do not understand the problems that exist on the ground (interviewee SH16, 2012). It is commonplace in Sabah that government employees are reluctant to honor local stewardship or respect local knowledge (Subject# SH16, 2012; Doolittle, 2005).

In the interviews with park rangers, they complained that the existing staff were not sufficient to safeguard the 35,000 ha park. The organization chart that the researcher obtained from the Sabah Parks office in Semporna showed that 15 rangers / officers were located at three substations in the islands. However, Sabah Parks only placed a total of six rangers at three substations in Boheydulang island, Sibuan island and Mantabuan island. Furthermore, they were not on duty at the same time, thus reducing the capabilities of the staff to patrol the ocean and deal with the multiple tasks, such as identifying legal permits for visitors and, importantly, dealing with the prevalent fish bombing incidents. Significantly, the staff and park rangers agreed that the park is in need of local rangers and that cooperation from villagers, especially from Selakan island, has resulted in positive outcomes in terms of protecting their village and waters from intruders. The situation reflects the willingness of local communities to co-manage TSMP, especially in terms of safeguarding the surrounding waters.

5.5.2 Community involvement in TSMP management

Co-management that would involve communities and other stakeholders in park management is yet to be implemented. The in-depth household survey revealed that 43% of respondents had been involved in planning, the decision-making process, or had received information or education, only once or twice before the park was officially gazetted. Almost half (49%) of the respondents said that they were never called to participate in any consultation or meeting with the park authority. Interviews with other important stakeholders i.e. the district (municipal) office, the Department of Fisheries and tourism operators, also revealed that most of them were not official members of the park management team. Representatives from the district office and the Department of Fisheries agreed that they were involved in consultation and any development projects in TSMP but that the final decisions always depended on Sabah Parks alone. Interviews with tourism/dive operators revealed that they were not involved officially in planning and developing tourism in TSMP and they literally visited Sabah Parks to register tourists who would be going to TSMP and Sipadan Island.

5.5.3 Local institutions

Both formal and informal local institutions exist in TSMP. Basically, these local institutions function to help local people to address their everyday issues and problems regarding livelihoods and sometimes in a religious sense. The only formal institution that exists in Kg. Selakan is for local people with native title. Their chief leader or *'panglima'* is recognized by the district office. There is also a Village Development Committee (known as JKK) that is also recognized by the

district office. They represent fellow villagers in meetings with the district office and Sabah Parks to raise issues that are of concern to the community.

In the other islands inhabited by Suluk and Bajau Laut people, their informal institutions are embedded in traditional cultural values. Although the authority does not formally recognize them, their existence is permitted because of the indirect role of customary rights held by the native people who allow them to stay in their settlements. Unlike the formal institution in Selakan island, they report their issues and problems to the landowners, the majority of whom live in Selakan island or in Semporna town. Usually, the *panglima* in Selakan will be their representative to voice their concerns in meetings with the municipal council. Many Bajau Laut chiefs were appointed by their landowners especially to take care of their land and other property in the islands.

For the Suluk community, since they are Muslim, an informal religious institution was formed by the *'Imam'* to guide their religious activity i.e. daily and Friday prayers. In many Suluk settlements, the *'surau'* (little mosque) was an essential facility and since they were not entitled to government assistance, donations from the public and rich individuals were acquired to set up the *surau*. However, 24% of the respondents said that they did not have a chief or supportive institution and only depended on families for help. These are mainly the Bajau Laut people or "sea nomads".

When asked if the local institutions could give them opportunities to influence the decision-making process regarding the park, 13% of respondents, all from Selakan island, responded that they can use their local institutions to voice their concern to the higher authorities

but they agreed unanimously that their voices were seldom heard. However, two respondents stated that their customary rights gave them opportunities to influence policy making regarding the park. However, often, the state displaced native people from the areas gazetted as the state's park and any development depended solely on Sabah Parks' plan. However, since customary rights have been recognized in TSMP, communities are allowed to stay in the park and continue with their life but with new rules and regulations. Furthermore, from observation, it can be concluded that although their rights have been sidelined and their livelihoods threatened, communities currently have the right to reject and stop development by Sabah Parks that has occurred without their consent. For instance, the few abandoned resort developments in TSMP were stopped because the community protested that the development was on their native land and had not received their consent. However, the rights have not helped much in solving issues regarding park development since Sabah Parks manages the park without active and meaningful participation from communities and other stakeholders. Therefore, 85% of the respondents said that they did not know if their local institution could influence the decision-making process and some of them said that they have been marginalized for a long time.

5.5.4 Agencies related to TSMP

Based on the interviews and secondary data obtained from the fieldwork, it was discovered that a number of government agencies are involved in TSMP from different backgrounds and with varied responsibilities. They include: Department of Fisheries - federal (livelihoods), Semporna District Office - (local council), National Security Council - federal (security), Royal Malaysian Police (marine) - federal (safety), Malaysian Maritime Enforcement Agency - federal (patrolling

and controlling the maritime area), and Royal Malaysian Army (patrolling the sea border). In addition, there are private sector organizations, especially tourism operators and NGOs such as the World Wildlife Fund (WWF) Malaysia. Although these agencies are not officially involved in managing the park, their tasks involve people in and around the area of TSMP and, hence, their perspectives and opinions are crucial in managing the park.

Although interviews with Sabah Parks' officials revealed that they have good relationships with other agencies, many informants pointed out the existence of overlapping institutional and organizational responsibilities and boundaries. TSMP management falls within the jurisdiction of Sabah Parks but, in some cases such as safety and security issues, fish bombing, controlling illegal immigrants and tourism, many agencies are involved. This makes co-management led by Sabah Parks appropriate. Many stakeholders from the agencies mentioned above agreed that they are involved in meetings and activities with Sabah Parks; however, many also agreed that involvement is not continuous. As a result some uneasy relationships exist, especially when challenging issues arise. For instances, interviews with dive operators revealed the overlapping duties that eventually compromise willingness to cooperate in stopping fish bombing. Several dive operators claimed that they sometimes encountered fish bombing incidents while diving. However, when the incidents were reported to the Marine Police, they would be told that it was not in their jurisdiction and that they should report to Sabah Parks. When the relevant authorities were asked about such incidents, they agreed that sometimes they did not respond to happenings in Sabah Parks territory since they were not consulted and involved in Sabah Parks management. This shows that interactions and communication between

stakeholders of TSMP are not efficient and compromise the safety and objectives of TSMP. Good communication skills are essential for working with other RAs and stakeholders. Wescott (2002), in his summary of the lessons learned from capacity building in coastal management, indicated that it is important to keep the message simple to ensure effective communication between RAs and stakeholders, especially when dealing with complex marine ecosystems. In the TSMP case, not only is the simplicity of the message important but, also, the commitment of Sabah Parks to involve relevant stakeholders is relevant to better management of the park.

An interview with a WWF officer revealed that the local council had not involved the Bajau Laut community in their development (social and economic) plan. According to the officer, the local council and many other government agencies, including Sabah Parks, treated the Bajau Laut communities as stateless outsiders and, hence, ignored their existence in Semporna waters. Such actions are detrimental toward both the social development of the Bajau Laut community, as well as the economic and environmental matters to which they relate. The Bajau Laut community is also a user of the marine resources and inhabits Semporna waters and, thus, consideration of their socioeconomic development is crucial to the protection of the environment in which they live. On some occasions, WWF research projects regarding communities were delayed because of objections from government agencies that they involved Bajau Laut communities. This reveals that traditional perspectives are held that envision cultural and racial differences as obstacles rather than opportunities to be seized. Therefore, it is very important for Sabah Parks and other stakeholders to communicate and cooperate with each other to ensure balanced and efficient management of TSMP and the well-being of its communities.

5.5.5 Agencies for livelihoods support

According to the survey, 20% of the respondents said that the Department of Fisheries (LKIM) is the most helpful agency in improving people's livelihoods. This can be seen in the seaweed project, and boat and diesel subsidy given out to Kg. Selakan villagers. Other external agencies that have contributed to the improvement of the community's well-being include Universiti Malaysia Sabah (UMS) for a seaweed project, a craft agency, and the Community Development Department. Surprisingly, no respondents acknowledged Sabah Parks as being the most helpful agency/person to improve their well-being. Most (76%) respondents said that they had never received any assistance from external agencies and that most of the time they depend on their own strength to survive.

Although TSMP has been established for ten years, LKIM, rather than Sabah Parks, is still playing an important role to help to sustain the community's livelihoods. Strategies to diversify the community's livelihoods portfolio have been the main objectives, as seen in the seaweed project and the mariculture project conducted in Selakan island. In an interview with a LKIM officer, he spoke as follows:

> *"We have always worked with the villagers since a long time ago, even after the park was established. Park zoning had great impacts on the fishing community. Sabah Parks did not come out with strategies to mitigate livelihoods problems. It is supposed to be their responsibility. Although we go to meetings together with Sabah Parks, sometimes we do not have mutual agreement, especially in terms of improving livelihoods. Even though we assist in the community's livelihoods projects, we still need to ask permission from Sabah Parks. It is like they are the owner, but an irresponsible owner. A recent issue was regarding the platform that LKIM was developing for a seaweed drying area and for the solar system. Sabah Parks was initially against it and that sparked off anger among the villagers and LKIM. The place in which we installed the platform was our station since before the park was established. I know there are guidelines but we have complied with*

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all the guidelines. If Sabah Parks continues to act like this, I guess villagers in Selakan will make a petition to exclude their territory from the park gazette area. I have heard rumors about this."

<div align="right">(Subject #SH 03)</div>

In addition, 53% of respondents said that their livelihood priorities are still fishing and seaweed farming and, thus, LKIM support is very much sought after since none of Sabah Parks livelihoods strategies have been implemented so far.

5.6 Ecotourism as a livelihoods strategy in TSMP

Ecotourism has been defined in chapter 2 as "an activity that involves travel to natural areas, and strives to be low impact. It helps to build environmental awareness that contributes to nature conservation and benefits the economic well-being and empowerment of local communities. Ecotourism is also inspired to minimize social impacts by respecting local cultures and also supports human rights through institutional means (in terms of access to resources and education)" (adapted from Ceballos-Lascurain, 1993a; Honey, 1999; Weinberg et al., 2002). The definition is applicable to TSMP and its inhabitants. Given the majestic scenery of the tropical islands with white sandy beaches and being recognized as one of the world's best diving spots (Semporna District Office, 2012), ecotourism in Semporna is one of the appropriate types of tourism to conserve marine resources and to improve the community's well-being simultaneously[13]. In addition, based on the previous discussion on the vulnerability context,

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[13] Currently, tourism in Semporna is the largest economic contributor to the town (Assistant District Officer, 2012). Although dive tourism has been long associated with Semporna and the number of tourists keeps increasing each year, no proper tourism plan has been developed as yet. Ironically, despite being a popular diving destination, Semporna is also the dirtiest town according to Sabah Tourism Minister (The Borneo Post, 2010), and the poverty level among the people is high: 90% of its population depend on government assistance in terms of subsistence allowances (Subject #SH10, 2012). Hence a proper

ecotourism-based income is likely to benefit and sustain livelihoods during the seasonally difficult times such as during the monsoon and drought seasons, or when seaweed cultivation is unproductive. The development of ecotourism will offer communities options to diversify their economic activities that will sustain income and, at the same time, increase awareness through education of the importance of marine conservation, according to what have been proposed in the ecotourism concept.

From the conservationists' point of view, there are critiques about ecotourism being misrepresented in development projects (e.g. eco-resorts which do not comply with ecotourism criteria). Such misrepresentations have ultimately led to environmental degradation and affected the genuineness of ecotourism. This has occurred on Mabul Island, one of the popular islands located southeast of Semporna. In the 1970s, Mabul was only a fishing village inhabited by Bajau Laut and Suluk people. However, in the 1990s, it became a popular spot for divers due to its proximity to Sipadan Island (about 15 km), one of the world's best diving spots (Cousteau, 1989). In 2006, Semporna District Office under the order from the state government and advised from Sabah Parks, ordered the closure of all of the resorts in Sipadan to protect the island's environment following establishment of the marine park in 2004, also administered and managed by Sabah Parks. As a result of this, many resorts moved their business to Mabul from Sipadan where they could continue to offer great diving and snorkeling experiences and at the same time protecting Sipadan's environment. Tourism in Mabul has not been properly planned and developed (Field observation, 2012). This can be seen through the scattered development that

ecotourism development plan is needed to conserve the beauty of Semporna and, at the same time, the community involved must share equitably the benefits from tourism activities.

varies from luxury resorts to a backpackers' lodge and lacks proper spatial planning, facilities and amenities (Field observation, 2012). There are still poor Bajau Laut and Suluk villages in the middle of the resorts and tourist center and they do not benefit from the surrounding tourism activities (Subject #SH16, 2012). They have been condemned for their unpleasant appearance and associated garbage, improper sewerage systems and other issues. The village is located adjacent to some luxury resorts and some residents beg for money from the tourists (Field observation, 2012). Obviously, the development of tourism in Mabul and Sipadan does not emphasize community participation and the important role the community might play in the protection and conservation of the environment (Subject #SH16, 2012). Most of the resorts are owned by outsiders and foreigners and, from a brief visit to Mabul, interviews with resorts workers revealed that employers were keener to take employees from the Philippines than local people as they can speak better English and they accept low wages. The substantial and increasing migration from the Philippines to Sabah has resulted in the illegal occupation of property and poverty problems (The Malaysian Times, 2012).

There are many lessons that could be learned from the existing tourism development in the Semporna islands prior to the application of 'real' ecotourism in TSMP. A detailed plan should be developed and executed so that the objectives of the marine park will not be compromised and economic benefits will be guaranteed to local communities.

Figure 5.6: Bajau Laut village adjacent to a luxury 'water village' resort in Mabul. The blue signage means 'Private land, trespassers will be prosecuted'.

Figure 5.7: Sipadan Water Village resort in Mabul located next to a Bajau Laut village. Garbage and unpleasant scenery are the main issues (small picture)

5.6.1 Attitudes towards ecotourism

Community participation in ecotourism activities is crucial in order to elevate their economic status. One might well ask "What kind of participation?" What level of participation is appropriate according to Arnstein's (1969) ladder of participation (Figure 5.8)? Based on the TSMP case, community participation should be encouraged to occur at the top rungs that are classified as 'citizen power', including partnership, delegated power and citizen control. Although the highest level, citizen control, is not plausible since TSMP is a marine park under the state's administration, partnership and delegated power, if well implemented, could be instrumental in the successful development of ecotourism in TSMP. The reason for this is

straightforward: some members of the community are entitled to native rights, making them important stakeholders in any kind of development in TSMP.

Figure 5.8: Eight rungs on the ladder of citizen participation
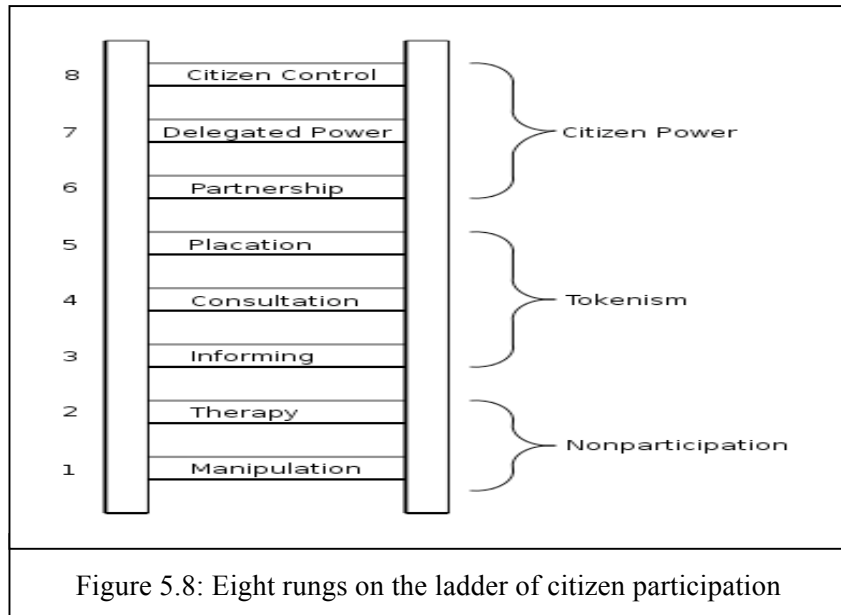
The results of the fieldwork demonstrate clearly that ecotourism is not yet implemented in ways that involve local people who depend for their livelihoods on harvesting marine resources. Therefore, it was not possible to examine the community's level of participation. Nor was it plausible to explore how institutional arrangements influence partnerships in ecotourism except for the realization that, to date, local involvement in ecotourism has been inhibited to the extent that it does not exist. However, it is important to examine people's attitudes towards potential ecotourism development in TSMP since this information could be used to guide and be an indicator of the community's aspirations to sustain themselves through ecotourism.

Furthermore, it is important to appreciate the local understanding of ecotourism so that local residents will not be sidelined in future ecotourism development.

Based on the household survey, when asked about their understanding of ecotourism, 70% answered 'Do not know', 24% answered 'It is about job opportunities', and 5% answered 'Holiday' (Table 5.6). This shows that local people are not well informed about ecotourism and this may be one reason for the failure to incorporate ecotourism into existing livelihoods so far.

	Frequency	Percent
Do not know	55	70
Job opportunity	19	24
Holiday	4	5
Protect ecosystem	1	1

Table 5.7: Communities' understanding of ecotourism

It was only possible to ask questions about ecotourism after the concept had been introduced to potential respondents by members of the research team. Based on Table 5.7, importantly, 89% of respondents agreed that ecotourism could be incorporated into existing livelihood activities to enhance their well-being. Only 1% disagreed and 6% were undecided. Fully two thirds (67%) showed a positive attitude towards ecotourism with the significant proviso that ecotourism must be beneficial to local people. Those with a negative attitude towards ecotourism believed that they would not get benefits, being very skeptical about the involvement of Sabah Parks.

	Frequency	Percent
Strongly disagree	0	0
Disagree	1	1.3
Undecided	5	6.3
Agree	70	88.6
Strongly agree	3	3.8
Total	79	100.0

Table 5.8:Communities' opinions towards ecotourism development in TSMP.

The household survey also revealed that 85% of respondents hoped to see more tourists coming to TSMP in the future. These positive attitudes of local communities toward incorporating ecotourism into their existing activities demonstrate that they will welcome efforts to improve their livelihoods. Furthermore, they emphasize that efforts must be made to give priority to local well-being as mentioned by the important person of Kg. Selakan as follows:

> *"There are lots of good thing about ecotourism that I know of. It can protect our marine resources, increase our income, and provide the opportunity for our younger generation to get a better job. We are villagers, we do not have proper education, but we do not want our next generation to inherit what we do today. Life is so hard nowadays (referring to park rules)."*

The respondent continued by saying:

> *"...we, sea people, have had enough of eating fish. We hope our government can provide better jobs that will allow our children to taste chicken or beef."*

In order to achieve local hopes about ecotourism, participation is required along with the delegation of power. Another respondent, representing a perspective held by a number of other informants, expressed caution about involving the local communities:

> *"We fully support if they want to develop ecotourism here in TSMP. But it must be done with the objective to incorporate ecotourism into the community's existing*

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livelihoods activities in order to sustain our livelihoods. If the communities are not involved during planning, there is a huge possibility that we will be sidelined again (reference to the previous attempt to develop a resort in TSMP). We are not against development, but they always do something without consulting and informing us, and that is suspicious enough. Maybe they do not want us to get involved."(Subject #31, 2012)

However, a contradictory comment was made by a Sabah Parks officer that showed misunderstanding, miscommunication, and a hostile relationship between the park authority and TSMP communities. His significant comments were made in relation to the abandoned tourism project in TSMP as follows:

"The villagers were totally depending on government help. They could not do anything on their own. They did not go to school and even their leaders were uneducated. When we wanted to build a resort there, they protested as they said the land was under native title application. But there was no proof. They always want to protest. If they continue like this, I do not think that we can develop TSMP into an ecotourism destination." (Subject #SH05, 2012)

The comments by the official were sensible with respect to education and people's dependency on government assistance. For instance, most of the older villagers did not go to school and, with limited knowledge, livelihoods options are very limited. This explains the dependency on government assistance and subsidies. However, from the fieldwork and household survey, the situation can also be explained by the lack of initiatives from Sabah Parks and other responsible authorities to empower communities in TSMP to be more independent in terms of improving their overall well-being. Most assistance has been short term, such as a one-off diesel subsidy, one-off boat and engines subsidy and so forth. Although these helped to alleviate burdens at the time, these kinds of assistance were only temporary and did not build

local capacities in enduring ways. Education and training are needed for long-term survival, for instance in entrepreneurship regarding seaweed production or other marine-based products, including tourism.

5.7 Chapter summary

This chapter has presented an analysis of local livelihoods, which is a key aspect of the research. It has been shown that legal status and native entitlement influence perceptions towards park establishment and changes in livelihoods. The Bajau who hold customary rights were very determined and vocal in giving opinions. In contrast, the Suluk and Bajau Laut, having no rights and no legal status (Bajau Laut), were reluctant to express their true feelings. Similarly, from an institutional perspective, the effectiveness of institutions that play an important role in improving livelihoods was also influenced by rights entitlement and legal recognition.

From this livelihoods analysis, the relationships among the park authority, the local communities and other stakeholders can also be discerned. A hostile relationship can be inferred based on the many negative remarks expressed by local respondents. Unsurprisingly, interviews with different stakeholders provided more perspectives on TSMP and uneasy relationships can be inferred from many different angles, although the responses regarding cooperation between relevant authorities, especially from government officers, were largely positive. Based on the above analysis, the importance of the institutional context in determining the well-being of local communities is clear. The findings that have been presented in this chapter lead to a discussion on institutional structures and processes, especially the role of NCR and institutions in SL, that follow in the next chapter.

Chapter 6

Discussion and interpretation of the findings

6.1 Introduction

In this chapter, the implications of the research findings will be discussed. Emphasis will be placed on the institutions and their roles in sustaining livelihoods and improving the communities' overall well-being. In previous chapters, the findings reveal distinctive results among the Bajau, Bajau Laut and Suluk communities in TSMP in term of their perceptions, livelihoods strategies and their well-being. The Bajau is likely to have better, although not necessarily sufficient, opportunities to diversify their livelihoods when compared to the Bajau Laut and Suluk communities. One obvious reason for this is the native laws that play a key role in providing opportunities for the Bajau to diversify their livelihoods strategies. Meanwhile, for Suluk people, although some of them have only been in TSMP for less than 5 years, their overall well-being is often better than that of the Bajau Laut people who have been in the Semporna waters for generations. Status as an immigrant, whether legal or illegal, does not seem to bother greatly the Suluk communities in sustaining their livelihoods. On the other hand, the Bajau Laut community struggles to continue with their traditional lifestyle since they are neither considered as immigrants nor citizens of Malaysia: they have not acquired a legal Malaysian identity although they are permitted to stay in Malaysian waters under the auspices of the United Nations (Daldeniz and Hampton, 2013).

6.2 The importance of institutional arrangements for community participation in co-management

In a paper entitled 'Institution and development: A view from below', Pande and Udry (2005) concluded that institutional quality is an important factor that decisively affects a country's growth. Institutional arrangements that can distribute benefits equitably in a sustainable manner with only minimal losses are, in fact, the model that is sought after by local resources users (Agrawal, 2001). In light of this theoretical perspective on the governance of common resources, many countries have claimed that control over resources is delegated to local users to reduce externalities in resource management and, at the same time, to promote a co-management strategy between related authorities and local resource users (Agrawal, 2001). On the other hand, some countries or states have chosen to remain as the dominant controller in the management of common pool resources. However, as the modern PA paradigm gives more attention to local community involvement, the establishment of a PA is no longer an excuse to further marginalize rural communities. Studies have shown that the success of MPAs is often associated with local support for conservation, which is strongly influenced by perceptions of the impacts and opinions of management and governance that are experienced by local communities (Bennet and Dearden, 2014; Shepherd and Terry, 2004).

In addition, in the case of TSMP, the community is entitled to customary laws that should allow them to be directly involved in resources management. The entitlement should influence their involvement in the institutional arrangements that should be created to address issues and problems. Therefore, empowering communities is a vital strategy in any attempt to reduce over-exploitation of marine resources, especially when they have strong legitimacy to participate in

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co-management because they have the most to lose if the resources that they control are degraded (Shepherd and Terry, 2004). Eventually, relevant stakeholders that will guide the management of the park should represent the park organization through such an institutional arrangement. Through the legal empowerment of the community, they could influence the decision-making process, especially related to park resources management and livelihoods issues.

6.2.1 Native customary rights (NCR) and institutional arrangement for sustainable livelihoods

Customary laws are a very important factor that should protect a community's rights to land and other property on that particular land. Indirectly, when a community has their rights recognized by law, it should also ensure that they could never be sidelined in park decision-making processes. Based on the findings of the study, NCR is marginally recognized as an influence in TSMP institutional arrangements. The park management plan indicates that co-management will be introduced, hence the foundation of a Local Community Forum (LCF)[14] to represent those in the community with NCR. Unfortunately, engagement with LCF only occurred before and a few times after park establishment. A very important member of LCF indicated in an interview his disappointment that Sabah Parks had stop consulting them prior to making decisions about the park. He added that prior to the park's official establishment, they were given priority treatment

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[14] The Local Community Forum consists of members with different backgrounds but similar entitlements: the NCR in TSMP. Some of them are well educated and live a good life in nearby towns. They inherited land in TSMP from their ancestors and have given usufruct rights to the Bajau Laut and Suluk to take care of their land and associated property. Their involvement was very much sought after by the community in TSMP since most of those living in TSMP lacked formal education, were not familiar with legal terms and had little knowledge about their rights as native people (Subject #SH08, 2012).

in every discussion and decision-making process. They filed ten pledges to be fulfilled if Sabah Parks wanted the community to give consent to the proposed TSMP. Sabah Parks only agreed to six of the pledges. Nonetheless, LCF proceeded to give their consent because of the promises made by Sabah Parks i.e. co-management, ecotourism and a hatchery project. At the time of interview in 2012, the respondents stated that it had been five years since they had been last invited to Sabah Parks meetings.

The park authority's failure to consult with local communities on park management and development are detrimental to relationships among stakeholders and the management of the park. Hostility between the park authority and local people is fostered, as well as negative perceptions towards conservation and ideas about sustainable resource use. Disempowerment of the community further marginalizes poor people. These negatives consequences could be reduced if the park authority would give extra attention to educating and involving local people in park management. The participatory events organized by the researcher and survey results revealed widespread negative perceptions towards the park authorities.

The most significant consequence of the failure to recognize those with NCR is that pending development plans are thwarted due to long-standing problems of ignorance and, in consequence, local resistance. For example, in an interview with a Sabah Parks officer, it was discovered that some projects have been cancelled or postponed because of disapproval from the community. The officer argued that many of those who disagreed with a project did not justify their action with claims of legal entitlement to native land, and gave no proof of a grant or other evidence of belonging. From the perspectives of Sabah Parks, communication and consultation

with the local community will only complicate matters. As a result, they adopt a controller role as the state's government agency rather than acting as a facilitator to involve relevant stakeholders in developing and managing the park. On the other hand, from the community's perspective, the argument has been made that they inherited the land and the sea from their ancestors. This can be seen from their gardens, their ancestors' graves and the seaweed farms that they ran for many years before park establishment. Some who did not possess valid grant or native title argued that they claimed the land under NCR long before park establishment and suspected that their application was still pending due to the gazetting of the park.

The two different perspectives can only be resolved through a meaningful and ongoing discussion, consultation and sharing of information between the park and people. NCR entitlement means that holders have the right not only to stay in TSMP, but also to be involved in managing it, i.e. determining access and control over resource use. They should benefit from whatever opportunities the park has to offer. For example, there was strong support for the introduction of ecotourism development in TSMP if it is locally managed. Some respondents expressed interest in homestays, boat rentals, cruises and other sea-venture activities but most emphasized that they would only agree to such activities if the power and benefits are equally shared. This shows that the community was well aware of what was happening around them, but they were not sufficiently well informed and well educated to devise their own means of influencing the institutional arrangements and management actions effectively.

6.2.2 The importance of institutional change for the livelihoods system

An SL approach is promoted in an attempt to eradicate poverty among rural, often marginalized, communities by putting people's priorities first, linking sectors both vertically and horizontally and from local to higher levels, building capacity and recognizing ownership of land or other properties, thereby moving the system in the direction of sustainability (Keely, 2001). In accordance with this, the institutional process, including customary laws, and the organizational structure (park management arrangements) have been studied in order to investigate how they can be used to influence the livelihoods system. Based on previous discussions, if NCR is truly recognized, it could be used to stimulate the acquisition of local feedback, thereby changing how institutions work, eventually contributing to organizational change (institutional arrangements). For instance, representatives from the people with NCR entitlement could be incorporated into the organizational structure of park management, allowing them to participate actively and meaningfully in information sharing and the decision-making process. Community participation is necessary to inform the management team about the situation on the ground and also for the community to be well informed on what is happening outside of their jurisdiction. Through information sharing and education, understanding and trust could be created, possibly resulting in mutual accommodation among stakeholders. Management efficiency could be increased through provision of a more productive environment, especially in terms of livelihoods and marine conservation in TSMP.

The objectives of the organization in managing TSMP should be to improve the well-being of communities and to conserve the ecosystems and natural resources of the park. Once all stakeholders are in unison to work on these objectives, feedback would inform the institution to

change management strategies accordingly. Furthermore, the dynamic nature and complexity of the marine environment will influence the feedback process and the movement towards sustainable livelihoods through institutional change.

6.3 Community involvement in institutional arrangements

Organizations that support SL should adopt a participatory method of decision making, which is people-centered (Pasteur, 2001). Although this may be controversial to implement in a marine park with multiple aims, recognition of the interests and priorities of multiple stakeholders is essential if problems are to be resolved. Trade-offs between different aims and across multiple sectors requires a holistic approach such as that embedded in SL. This study has investigated the impacts of the park on the community's livelihoods while recognizing that conservational aims should not be compromised. Hence community involvement has been advocated to enhance the sustainability of livelihoods strategies as well as the broader environment in which these are embedded.

6.3.1 The extent of involvement

Protected areas, although designated and managed to sustain ecological processes, are culturally embedded and are influenced by human activities (Wall, 1999). Therefore, in recent strategies to manage such areas, community/local participation is encouraged so that the objectives of park establishment can be accomplished. However, in TSMP, many factors have hindered local participation, particularly the status of local people, i.e. stateless Bajau Laut, illegal Suluk immigrants and legal but not recognized Suluk immigrants. All are significant users of resources, thus they should have the opportunity to provide input into park management decisions. Lack of

legal qualifications that determine that they have no 'rights' to be involved should not be the reason for marginalization because, eventually, they influence significantly the well-being of the marine environment that they are living in.

Based on Arnstein's ladder of citizen participation (Figure 5.8), which has been used extensively in planning and development processes and can be applied to TSMP, it can be concluded that the Bajau Laut and Suluk communities have only been involved in the manipulation and therapy rungs of the ladder. This means that they have not been invited to participate in park management. Rather, they have only been informed, 'educated' and manipulated to accept the park establishment, so that their hostility and resistance can be managed. Before the park was established officially, the Semporna Island Project (SIP) members including staff from the Marine Conservation Society, UK, and Sabah Parks made a 'Boat Show' tour to all inhabited islands in TSMP to meet with every villager to inform and educate them about the proposal to conserve the surrounding environment. Many participatory activities were carried out and many villagers were very happy because SIP always came with '*buah tangan*' (souvenirs, often food) as tokens of appreciation (Subject #072, 2012). However, based on the interviews, many did not have a deep understanding about conservation and the reasons for establishment of the area as a marine park. None of the Bajau Laut people agreed with the rules and regulations since they felt marginalized and depended entirely on the marine resources for their survival. Failure to recognize them legally as native or indigenous people meant that they had no rights to receive support from government agencies, especially Sabah Parks. This

explains their resistance and lack of willingness to follow park regulations, especially on zoning issues.

The Bajau community was only involved at the second rung of Arnstein's ladder, 'tokenism', which included informing, consultation and placation. Most people in Selakan island were involved during the pre-establishment phase when information and consultation occurred but only a few were involved after the park was established. Prior to establishment, many agreed to cooperate because the objectives and likely outcomes of park establishment were presented to them convincingly. Placation only applied to LCF members who represented individuals in the local community with NCR title. They went to management meetings to be advisors but, nevertheless, the decisions were still made by Sabah Parks. Information and consultation events were not held consistently after the park was officially established. LCF was then vocal in addressing the community's concerns, especially on livelihoods issues. They sent several memoranda to Sabah Parks regarding livelihoods, property rights, rights to work on seaweed farms without fees and other matters of concern to the community. However, LCF was condemned as having only personal interests in park management.

The above information indicates that community involvement in TSMP management has been very limited. Although they were supposed to co-manage the park and the creation of a partnership was outlined in the management plan before the park was officially established, at the time of research in 2012 there were no signs of reconciliation between the park and the local people. The contents of the plan were one of the reasons that that community, especially those with NCR, agreed to the establishment of a marine park. Although they had to trade-off some of

their privileges, they were expecting more benefits. A top-down approach to governance that has occurred in TSMP is also prevalent in Malaysia in general. Local voices are seldom heard. Again, based on North (1990) as discussed in Chapter Two, inefficient institutions survive because of their redistributive strategy rather than because of the incentives they provide to enhance productivity. This situation is prevalent in poor and developing countries. Investment in education is not a favored strategy in rural Malaysia, especially in Sabah where the state addresses poverty by providing short-term assistance, such as groceries, '*duit raya*' (money given during Muslim festivities), and so forth. Such redistributions are monopolized by the same government-linked service providers that restrict productivity. In these ways, they eventually make the inefficient institution more 'efficient' because they are seen to assist the unproductive and uneducated community that they have helped to created. Local groups that are vocal do not enter the feedback loop (refer to Figure 2.1) that results in institutional change and could lead to a modified organizational structure to manage TSMP.

6.4 Limitations to community participation in co-management

Most people in TSMP, whether entitled to NCR or not, native or non native, have not been and are not formally and actively involved in park management. Significant control role has been imposed from the highest level of authority, which is the state, resulting in lack of cooperation with other important stakeholders. Limitations to community participation in TSMP will now discussed using the SL framework (SLF) and institutional perspectives.

6.4.1 Lack of assets hindering community participation

Sociocultural limitations

Sociocultural limitations to participation from communities in TSMP include lack of human capital related to lack of social capital. A Sabah Parks staff member who is a local Bajau Laut made a significant comment as follows:

> *"Although co-management and community participation were importantly identified before park establishment, it seems that the park is inclined more toward nature conservation now. I agreed with the concern raised by LCF and I understand why they are angry. In most of our activities now, we no longer involve the community. They said the community would only be a burden because they know nothing. I disagreed. But I am just an ordinary worker; no-one would listen to me. I come from a Bajau Laut family. With right to education and fair opportunities, we can be just like the others."* (Subject SH18, 2012)

He made points in his comment above about education and opportunities. One of the biggest barriers for community participation in TSMP is the lack of educated human resources that influence capacity building. Lack of capable human resources includes lack of capacity, skills, knowledge and opportunities to participate in activities, whether it is from Sabah Parks or other government agencies. Developing human resources can only be done through education. Some people perceive the sea people to be ignorant in terms of education and they are comfortable living on the sea. Although it might be true for some of the Bajau Laut community who are still sea nomads, it is not completely true for certain people in TSMP. During the interviews, many respondents complained that the primary school in Pulau Selakan operated from standard 1-3 (7–9 years old) only, and standard 4-6 (10 - 12 years) was closed in the 1990s and pupils were moved to a centralized school in Pulau Bum Bum, 15 km southwest of Pulau Selakan. This school serves students from all of the islands in TSMP but it is limited to the Bajau and Suluk

communities. There is no secondary school (high school) in TSMP or the nearby islands. In consequence, children are sent to Semporna town where a hostel is provided for islanders staying for school and it definitely cost them more money. Few interviewed families expressed concern about their children who do not want to go to school in town. However, they know the consequences of being uneducated and fear that their children will live a difficult life without knowledge.

Education is important to the Suluk community because they know they have to struggle to adapt and compete with other local people. Some of the Suluk families shared stories about how they have had to give up their children for temporary adoption by other Suluk families who already had Malaysian ID and lived permanently in town so that their children could go to school. The Suluk, just like the Bajau Laut, has very strong bonds and they believe that they will survive any challenges as long as they support and protect each other. The Suluk community exhibits the highest level of awareness of the importance of education and this explains their situation in Sabah in comparison to the Bajau and Bajau Laut. Although the Bajau has more advantages to improve their knowledge and skills, the willingness to learn among the youth is low compared to Suluk people. Perhaps the short-term government assistance from the Department of Fisheries and other agencies suffices to meet their survival needs. Nevertheless, some families in Selakan showed concern that their children do not want to continue to high school and that some young women are not interested in inheriting craft skills from the older generations. Unlike the younger generations of Bajau and Bajau Laut, Suluk youth have strong determination to leave the islands to seek a better life in towns. Lack of facilities, poverty and

lack of entitlement to receive government assistance are strong forces that drive the Suluk community to work harder. Perhaps historical factors have also influenced their character as they were once the masters in the Sulu-Sulawesi area and now they live a difficult life because of the civil war in the Southern Philippines.

From the findings of the study, it is apparent that lack of capable human resources derives substantially from lack of government effort to invest in educating the sea people. Short-term assistance is not enough to build the capacity of the people to enable them to be involved in park management activities. When people are uneducated, there will be fewer opportunities for them to improve their well-being. Capacity building through education can be implemented through various channels and does not necessarily involve formal education at school.

It is important to develop the human resources of the community (Aref et al., 2009). Community capacity includes: i) community participation - a concept that involves stakeholders participating in decision making and the empowerment of people to take part in park management; ii) problem assessment capacities - so that the community is capable of identifying and solving problems; iii) equitable relationships with external stakeholders - a balanced approach towards involving and strengthening the community; iv) skills and knowledge - to assist in community involvement. The park authority should look ahead and invest in these capacities in order to produce social capital for co-management. No effort has yet been made in these directions.

Financial limitations

As mentioned in the findings of livelihoods analysis, the majority of the people in TSMP are poor. They did not have the financial means or assets to diversify their livelihood strategies after park establishment, much less to organize and get involved in participatory activities. Many respondents indicated that they could not afford to spend time to participate because their livelihood activities required priority and time away from these might result in lack of food. For instance, in the participatory events conducted during the fieldwork, I was advised to provide food because that was the culturally appropriate way of doing things. I discovered that this was related to the time commitment that they had sacrificed by not going to sea to cooperate in the study, thereby losing their sustenance for the day. The chief of Selakan village indicated that most villagers would not have been involved in the study unless he had convinced them to do so, and he was pleased that they had been provided with food. In addition, for the household survey, all appointments had to be arranged after they had returned from work.

Furthermore, being economically marginalized, most TSMP residents did not have the self-confidence to express their opinions in public because of feelings of politically vulnerability and powerlessness. Many of them thanked me for coming and choosing them as study subjects so that their opinions could be heard through my report. They mentioned that higher leaders would likely listen more to university scholars[15] than local residents.

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[15] Many respondents perceived that the authorities only listen to university scholars as they said the seaweed farming was only successful because of the research and proposal of the Universiti Malaysia Sabah (UMS). Due to their high expectations regarding the outcome of this study, I had to remind them frequently that it is only the beginning, and more work and research is needed to accomplish their desires for sustainable livelihoods.

A Sabah Parks officer suggested that the community and their leader did not have the aspiration to change and were content to depend on government assistance. This is not completely correct. They have aspirations but they do not have the knowledge and, most importantly, they do not have the financial capital to start projects that could change their situation. For instance, villagers in Selakan were very keen to participate in future ecotourism activities, especially in homestay projects, but most agreed that without financial assistance, they would not be able to renovate and build proper houses for tourists. In addition, in a participatory event with female respondents who were housewives, most of them complained about the less attention given to them, especially single mothers, by the relevant authorities. This further marginalized women and discouraged their participation, as they perceived that their opinions were unimportant.

Physical limitations

One of the barriers to community participation is the lack of infrastructure and facilities. The only community hall is in Selakan island but it was not properly built and has many deficiencies e.g. leaks, ceiling collapse. It was not possible to arrange participatory events in other islands since there were no facilities to gather people. Furthermore, participants would still have needed to come at their own expenses i.e. boat fuel, so this undermined participation. Geographical location also contributes to lack of infrastructure since TSMP's archipelagic setting is a challenge, especially for transportation. However, it should not be a reason to marginalize the sea people. There are many marine communities, especially in Peninsular Malaysia such as in

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Terengganu and Johor states that are well equipped with basic amenities and proper infrastructure. Lack of basic amenities, such as clean water and electricity/solar power, also hindered community participation, especially in ecotourism. A few respondents in Selakan island were enthusiastic about ecotourism development and have been planning a homestay project for tourists to experience Bajau culture. However, according to them, lack of facilities prevents tourists from coming to their village. One of the major concerns is the sewerage system and problems with cleanliness. From observation and interviews, it was discovered that there was no garbage disposal facility: not even a single garbage bin was provided on each island. Human wastes were being dumped into the sea directly from the houses. The garbage and human waste cause unpleasant sights and odors (Figure 6.2).

Figure 6.1: Garbage is everywhere along the beach during low tide (left). Waste under villager's houses in Selakan (right).

It is ironic that the most visited place is also the dirtiest city in Sabah according to Datuk Masidi Manjun, the Minister at the Ministry of Tourism, Culture and Environment Sabah. Awareness concerning cleanliness and sanitation should be enhanced among local people and waste disposal facilities should be provided.

6.4.2 Institutional issues and problems as a result of inefficient institutions

Political and legal factors

One important factor that hinders community participation and is also the main issue in this study is legal status and political impediments. Political and legal issues result from poor governance and inefficient institutions. In response to people's voices in support of 'clean' (free

from corruption) and transparent government, Malaysia has demonstrated significant changes in voting behavior in the recent years. This can be seen in the May 2013 general election. Although the long-ruling government under the *Barisan Nasional* (BN)[16] coalition of parties still won narrowly, detailed voting patterns showed that they lost much support in their strong base areas, in well-developed states and in major cities, leading to the conclusion that they only won in villages and rural areas (SPR, 2013). The losses in developed states and in the majority of urban areas (most of the state capitals) showed that access to information was a key driver of change. This situation is an example of how an inefficient institution can be sustained over long period of time because of loyal support from rural and poor people, through redistribution of resources, especially when short-term favors were given near the election to gain votes. This is the consequence when inefficient governance results in minimal investment in education for marginalized groups so that they depend on and support the government for their survival. Although the need for change is recognized widely in Peninsular Malaysia where well-developed states and many urban areas are located, it is not the case in Sabah. The fieldwork was conducted a few months before the general election[17] and it revealed that the sea people were loyal supporters of the government. Local leaders admitted that they had received much government assistance, especially before the election, to encourage them to ensure that their fellow villagers would support the long-ruling party to show their gratitude for the short-term assistance. On the other hand, not all villagers were naïve and some respondents criticized the attitudes of their

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[16] Barisan Nasional is a coalition of 13 political parties and was formed in 1973. It is the successor to Alliance (Parti Perikatan) and has been Malaysia's ruling force since independence in 1957.
[17] The 13th Malaysian General Election was held on 5 May 2013.

elected leaders who only showed their face during the election and were gone after winning. This very politicized system also influenced the distribution of government assistance and some respondents argued that the Village's Development Committee had been unfair in distributing assistance, with people with different views being sidelined (Subject #005, 2012).

Poor governance and corruption also contributed to the legal status problems among the Bajau Laut and Suluk people. A Royal Commission of Inquiry (RCI)[18] was founded in 2012 to investigate issues regarding citizenship and immigration in Sabah. Prominent political, including both federal and state, leaders were required to testify. Apparently, hundreds of thousands of foreigners, especially Filipinos in Sabah, had been granted citizenship status since the 1980s[19]. The roots of the problem were linked to a plot by the long-ruling government to increase the number of Muslim voters (mostly of Suluk ethnicity) in Sabah to retain power in the state. The increasing number of legal and illegal immigrants from the Philippines greatly changed the demography of Sabah. In Semporna, although they stayed illegally in Sabah, the Suluk community survives because of the protection from their relatives who have been granted

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[18] The RCI was formed in 2012 after protest by Sabahan BN politicians who resigned their posts because of frustration with the federal government's failure to resolve immigration issues in Sabah. Allegations were made by the opposition parties in relation to the scandal of systematic granting of citizenship to foreigners, especially Muslim Filipino immigrants.

[19] Sadiq (2005), in his study on illegal immigration in Malaysia, indicated that illegal immigrants were taking part in elections in Malaysia even as many natives e.g. Bajau Laut, continue to have no documents proving their citizenship. The author demonstrated that illegal immigrants were given the rights of citizens, especially immigrants from the Philippines and Indonesia, where the state uses illegal immigrants from these neighbouring countries to ''Malayize'' or homogenize Malaysia. The study concluded that the motive for such practices is to use illegal immigrants as phantom voters to assure political control by a Malay party such as the United Malays National Organization (UMNO).

citizenship[20]. Unfortunately for the Bajau Laut community, although the legal Bajau Laut Association based in Lahad Datu, 130km from Semporna, has granted them recognition cards, not many Bajau Laut people were aware of this. Interviews with Bajau Laut people who chose to live a sedentary life in a few water villages in Semporna, revealed that most Bajau Laut in the islands still moving around, do not know about the recognition cards that recognize them as native and can protect them from harassment by the authorities. Apparently, power misappropriation by Bajau Laut leaders contributes to the on-going stateless problem among the Bajau Laut community (Subject #SH11, 2012). A park ranger who was responsible for park patrols indicated that he had encountered numerous Suluk people entering the park who, when asked for ID, showed Bajau Laut recognition cards although their looks and dialect were obviously Suluk. He argued that the leaders of each village or community were responsible for the distribution of the cards and he refused to admit that many cards had been 'sold' to Filipinos.

The political and legal problems that have been described hinder community participation. Highly influenced by the agendas of the political parties, many initiatives could only proceed if the areas were strong supporters of the current government. Conflicts between political leaders also hindered development. For example, in Pulau Bum Bum, the largest island in Semporna and the closest to mainland Semporna, a bridge project to connect the island with the mainland was approved in the federal budget for the 9th Malaysian Plan (2006-2010). The

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[20] Another implication can be seen in the armed invasion to 'reclaim' Sabah in February 2013, led by the self-proclaimed Sulu Sultan Jamalul Kiram III, which was unsuccessful but threatens the safety of Sabah with other possible invasion attempts (Astro Awani, 2013). It is also important to note that the invasion occurred in Lahad Datu and Semporna (the study site), both areas are situated on the south eastern coast of Sabah, close to the Philippine sea border, and are known for the huge number of Suluk immigrants inhabiting those districts.

project had not been started by 2012. According to informants, this was because of the absence of mutual interests between a local political leader and the state's leader. This situation is similar to the struggles in managing TSMP where institutional issues are influenced by the highly centralized political power despite efforts of the administration to decentralize management of TSMP.

6.5 The consequences of communities' involvement and non-involvement in managing MPA

One of the factors that lead to communities' non-involvement is the low level of understanding of the importance of conservation. This is supported by Dr. Elizabeth Woods from MCS UK, who is the backbone of the TSMP project, where during a brief interview she agreed that the main challenge is to get the community to understand the importance of conservation. It is hard to increase the community's understanding of the reason for conservation if the authority does not allow active participation. The impacts of non-involvement range across social and economic concerns. Economically, with the current arrangement and approach, any kind of development in TSMP will not succeed because the community that was sidelined during the whole process of planning and development will reject it. The community has the right to propose or reject any kind of development because of the NCR entitlement. They can propose but the authority has the power to decide. Hence, non-involvement supports a centralized arrangement that will not bring benefits to the community or to other TSMP stakeholders.

On the other hand, if the community is invited to co-manage the park, especially in terms of safeguarding their environment, many problems, such as safety issues from invasion by

outsiders and theft, could be reduced. For example, although Sabah Parks has made efforts to diversify livelihoods through giant clam hatching, this project took so long that eventually people invaded the sanctuary area to steal clams or extract resources there. When community members were caught invading the sanctuary zone or plucking fruits (which were planted by their ancestors) in Boheydulang, they themselves did not like what they had done. One respondent said "It was like stealing in your own garden" but they did it because of their depressed livelihoods. They regretted that many of the invaders and fish bombers were not from TSMP, but were outsiders from nearby islands or the Philippines who came to take what belonged to the community. Many of those in Selakan island were willing to safeguard TSMP and act as rangers if that would make their environment safer and a better place. Ethnically, although it is hard for the Bajau Laut and Suluk to be involved in co-management, the involvement of Bajau with NCR could influence their well-being as well. When Bajau respondents were asked whether they are comfortable with the presence of Bajau Laut and Suluk in their area, a typical reply was,

> *"We have been living like this (in tolerance) for generations. We are Samah (referring to the larger Bajau group that means 'same'), and what makes us different today is that we live a sedentary life and they are still sea nomads. Furthermore, we have been offering usufruct rights for a long time to help out. That is the only thing we can do since we are also poor."* (Subject #024, 2012)

6.6 Contributions of the thesis

The utilization of a SL framework in this study to assess communities' livelihoods in marine protected area is different from that conducted in rural and terrestrial protected areas which focus primarily on poverty and livelihoods issues. This study however, focuses on the institutional arrangements that promote livelihoods sustainability especially among an indigenous community

with native entitlement. To do this, institutional theory is used to address the institutions and organizations component that is an important part of SLF. This is done in order to emphasize and better understand the role of institution in livelihoods diversification and community development. Furthermore, this is done on the context of a marine park where there are particularly challenging issues stemming from the uses of both terrestrial and marine resources. Later, by linking the institutional and livelihoods approaches, based on documenting community perspectives through participatory events, the potential benefits of co-management in developing ecotourism are discussed.

6.5.1 Theoretical contribution: Integrating institutional theory into a SL approach

Salm and Clark (1984) demonstrated that designing one lead agency with clear objectives, responsibilities and powers, and establishing clear directions in its relationships with other relevant authorities and stakeholders, could be a significant means of building institutional arrangements in a marine park[21]. However, to establish a single agency i.e. Sabah Parks, with power, motivation and sufficient human, technical and financial resources is a challenging task. Hiring more personnel into the park management team to address issues is not always the best solution. Given the dynamics of marine ecosystems and the problems that have been discussed previously, a vital factor in the improvement of marine governance is to build partnerships to facilitate cooperation, collaboration and communication (Davis, 2004). Therefore, in the case of

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[21] In the 1980s and 1990s, designing one lead agency to collaborate with other authorities/stakeholders was the preferred way of governance. However, in many circumstances, one single agency cannot afford the entire human, financial and technical capital. Therefore in the current discourses about resource management, co-management is believed to be a means to solve conflicts related to many natural resources management issues (Muñoz-Erickson et al. 2010).

TSMP, co-management is suggested to be a mechanism with the most potential to resolve the problems that have been discussed.

Co-management in TSMP is an important means of gaining community support, especially from communities entitled to NCR status. Without the consent and support from NCR communities, plans and development will not be implemented. Therefore, the incorporation of residents with NCR status into the co-management framework is a necessary first step towards the later establishment of an organization that recognizes and represents all stakeholders in TSMP. Such an arrangement is vital in capacity building, social capital being one of the community's assets for sustainable livelihoods. Although some were entitled with NCR and should not have been sidelined in the management process, however lack of capacity and education has hindered their participation in management of TSMP. From the institutional theory perspective, an efficient institution could influence investment in education, thereby building capacity that will provide communities with the ability to participate in planning, developing and managing. This would eventually empower them to diversify their livelihoods and, at the same time, protect the environment.

This study conforms to that of Jones et al. (2013) that highlighted the importance of incentives structures to support sustainable resource management (Section 2.4). Based on the findings, institutional arrangement of TSMP currently fail to provide incentives such as economic (e.g. promoting alternatives livelihoods, improvement in local infrastructures and living standards), knowledge (e.g. integration of traditional and scientific knowledge), legal (e.g. adaptive management and local discretionary action, integrating local customary institutions),

and participative (e.g. participative governance structures, building trust and social capital among stakeholders) conditions. The result is that livelihoods have been depressed and local hostility toward park establishment has occurred.

Figure 6.3 was extracted from the SLF (Figure 2.3) and formulated based on the empirical evidence and fieldwork data. Figure 6.3 shows how institutional arrangements influence SL. There are important components that link the relationship between institutional arrangements and livelihoods strategies, which, if in place, would eventually move the system in the direction of more sustainable livelihoods and marine resources conservation. The study has shown that the hostility between park authorities and local people has occurred for several reasons. First, Sabah Parks management of TSMP has focused on the marine resources and its scientific research. The community has become depressed since they have not yet seen benefits from park establishment. Moreover, Sabah Parks has yet to recognize and adhere to NCR status that should require holders' involvement in a participatory process and governance through co-management.
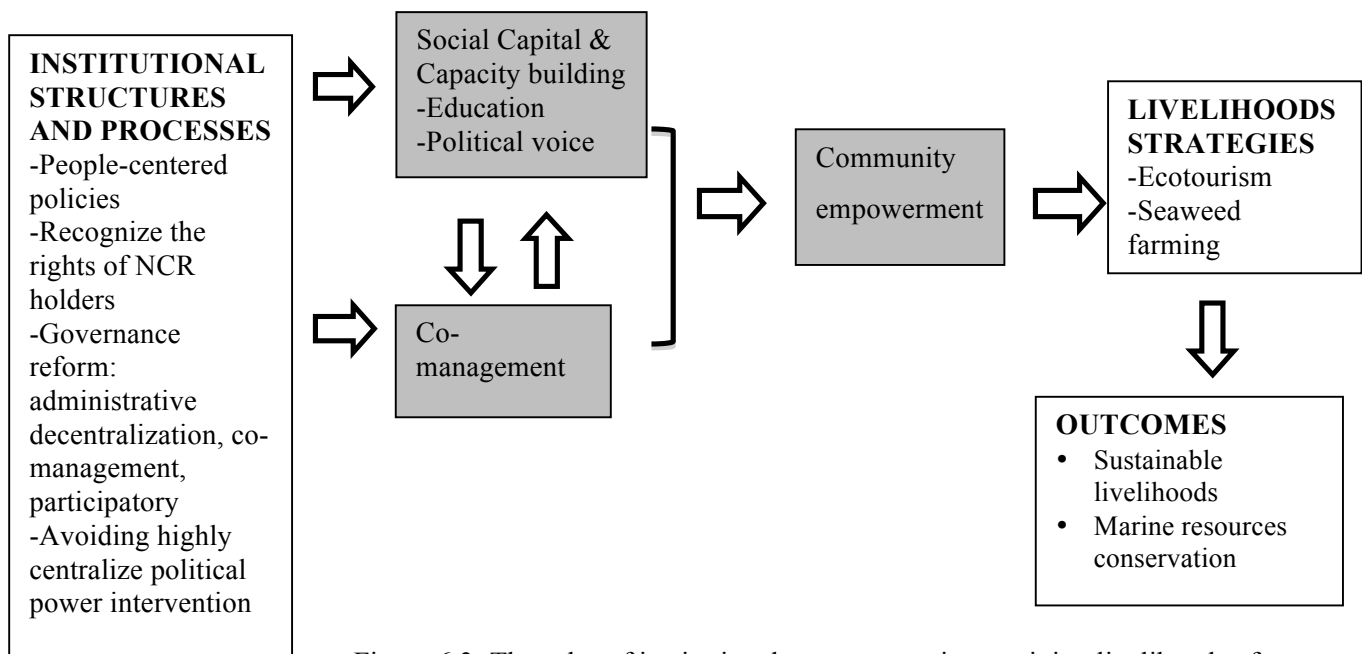
Figure 6.3: The roles of institutional arrangement in sustaining livelihoods of
TSMP communities

Most respondents agreed that livelihoods have been depressed due to the inefficiency of

Sabah Parks in governing TSMP. It has also been discovered that highly centralized political

power, led by the BN coalition parties, influences development at the local level. Therefore,

based on institutional theory and a SL approach, institutional arrangements that promote

participative, and decentralized decision making could influence SL outcomes by espousing a

co-management approach to govern the park. The first step in this is to recognized NCR status

holders not only in paper, but also in its implementation. In addition, governance reforms should

include administrative decentralization, which will involve power delegation from the top (the

state) to the local level to encourage co-management and participatory planning and

development. However, even if decentralization and co-management are pursued, political power

that is in the hands of BN coalition parties that have ruled the country since 1957 and Sabah since 1963 is a major obstacle that might prevent the efficient implementation of co-management. For instance, the interviews revealed that some people with strong connections with political leaders were given 'special treatment' with respect to seaweed plantations in TSMP. Furthermore, the differing views among political leaders at the local and state levels have results in project abandonment in the Semporna area. Hence, governance institutions are required to reduce the intervention of highly centralized political agendas into the governance of TSMP through decentralization and the implementation of a co-management regime.

Theoretically, change towards more efficient institutional arrangements at TSMP could occur if the above-mentioned issues are addressed. Efficient institutions put educational investment as a priority in order to produce efficient organization. Hence, social capital could be enhanced through the implementation of a capacity building program. Moreover, educational programs should be available to all communities and stakeholders of TSMP. Importantly, in order to address imbalances in political power, communities must be well represented if they are to have a strong and influential voice. The creation of sufficient capacity to participate in park activities would eventually influence the success of co-management in TSMP. Although the presence of NCR should empower communities, it will not do so unless governance institutions are reformed and emphasis is placed on capacity building through education. When the community is empowered and well represented in a co-management regime, they will have opportunities to participate in planning and decision-making processes, especially as related to socioeconomic matters. Nevertheless, it will still be difficult to decide on strategies to enhance

livelihoods without compromising the conservation of marine resources. However, it is important to keep in mind that co-management should be based on a problem-solving process and the process of decision-making should involve all the resources users. This is typical co-management regimes which involves many actors who engage in problem solving activities in relation to natural resources and it may be based on trial-and-error activities where different options are tested and evaluated (Carlsson and Berkes, 2005).

6.5.2 Conceptual contribution: The benefits of co-management in developing ecotourism

Ecotourism has been suggested as an alternative livelihood for communities in TSMP to reduce their dependence on extracting marine resources. Although tourism is the main economic activity in Semporna, communities in TSMP are not engaged in (eco)tourism activities despite the growing number of tourists. The latter come especially to Sibuan island to taking the open water diving course, snorkel, or view the Bajau Laut lifestyle. It has been proposed to introduce a fee for entrance to TSMP but, at the time of research, Sabah Parks only required operators to complete an entrance form for registration purposes prior to entering the park. However, according to interviews with dive operators and the local council, they would not object if entrance fees were introduced. But, if this were to occur, they would expect Sabah Parks to enhance the tourism facilities in TSMP as no tourism facilities are currently provided in TSMP.
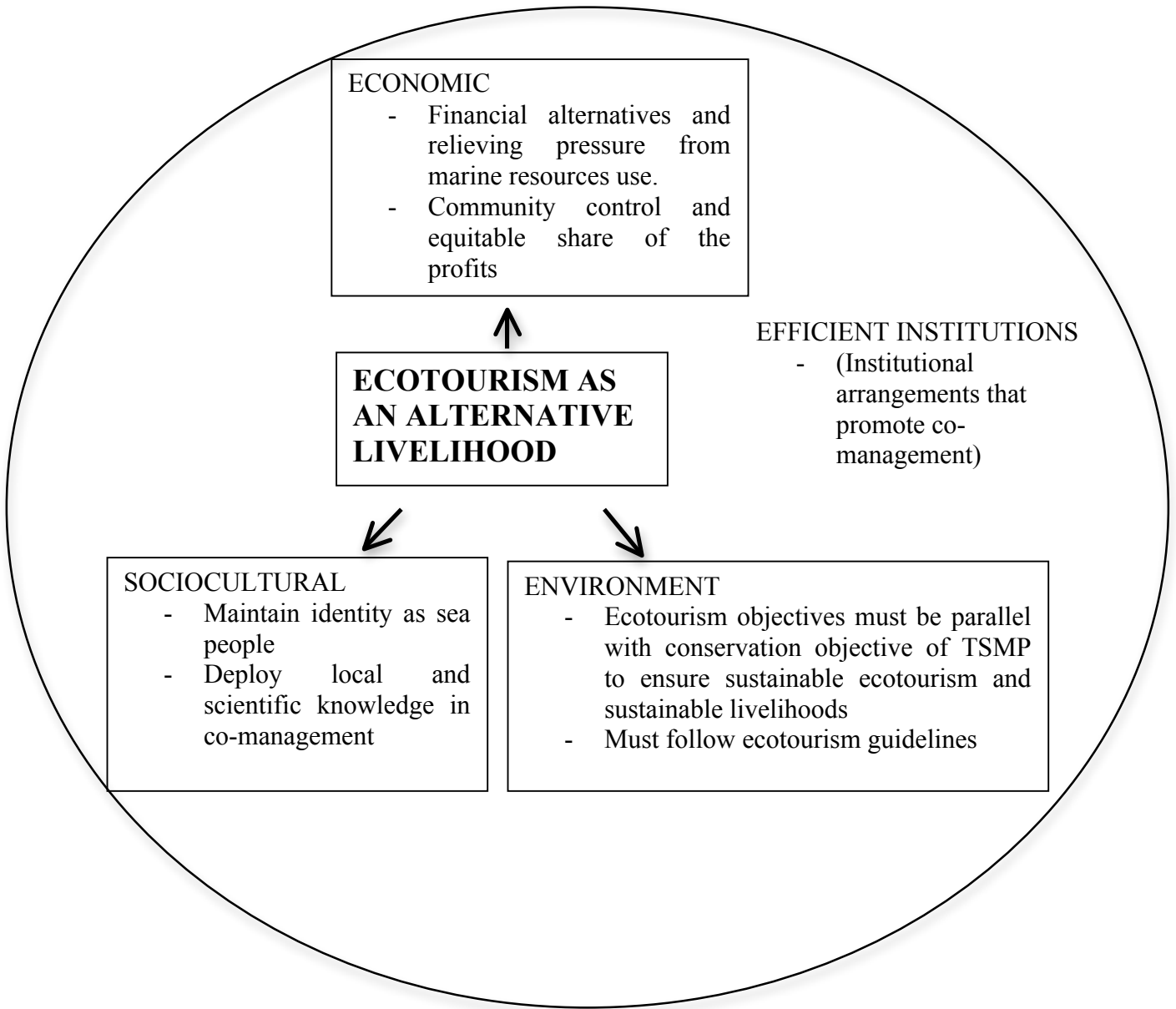
Figure 6.4: Important components for ecotourism development in TSMP.

Figure 6.4 shows the significant roles that ecotourism might play if it is implemented as a complementary strategy to fishing activities. The livelihoods approach espoused in this study indicates ecotourism as a means of livelihoods diversification that connects the economic,

sociocultural and environmental underpinnings of sustainability. However, based on institutional theory, the objectives of ecotourism in TSMP can only be achieved through the involvement of efficient institutions, where power and political concern lie, which are crucial to the success of ecotourism development in TSMP through the implementation of policies that are informed by the local situation (a bottom-up policy making process).

Residents perceived ecotourism with a degree of skepticism and limited understanding of what ecotourism might offer them. They were skeptical that, under the control of Sabah Parks, the economic opportunities for them would be compromised. Most interviewees did not trust Sabah Parks in managing ecotourism. Although worried about how profits might be shared, they were open to participation in ecotourism activities if this would diversify their livelihoods and provide financial opportunities. They believed that the community should have control over ecotourism and that profits should be shared equitably.

In the literature, tourism is often linked with erosion of the cultural identity of the host community. Therefore, if ecotourism is developed in TSMP, care should be taken to respect the cultural identity of the sea people, even though they may be pursuing other livelihood opportunities. One respondent was concerned about this issue and commented as follows:

> *"I do not have a problem if tourists want to come here (TSMP), but I am worried about the foreign culture that might influence our's. First of all, authorities should have guidelines for the tourists to follow to respect local culture and tradition."* (Subject #064, 2012)

The comment was made due to the current trends in Semporna where the majority of the resorts, tourism agencies, and dive operations are run by foreigners. Honoring local knowledge is one of the best ways of gaining trust and maintaining local traditions. Two-way capacity building is

needed where the authorities learn to appreciate local knowledge and local communities learn scientific methods for managing ecotourism. From the environmental perspective, ecotourism development should be paralleled with the conservation objectives for TSMP to support both sustainable ecotourism and sustainable livelihoods. In addition, all ecotourism development and activities should follow the ecotourism guidelines discussed in Chapter 2 (Table 2.6).

6.5.3 Implications of the institutional analysis for the future of MPAs in Sabah

Communities' perceptions of management and governance of the park inevitably influenced their attitude towards livelihoods and conservation outcomes. From the study, it can be concluded that communities' perceptions of management and the governance structure of TSMP were critical and hostile. The inability to manage the park-people relationship efficiently was attributed to lack of capacity within Sabah Parks and the lack of coordination with other important agencies by NGO representatives, academics, and other government agencies. One of the significant conflicts between Sabah Parks and other government agencies is the other agencies bring development whereas Sabah Parks emphasizes resource protection. The Department of Fisheries and Semporna District Office officials demonstrated this when they questioned the hopeless development effort of Sabah Parks in TSMP in comparison to what they felt the Department of Fisheries had been doing. The centralized and top-down governance approach in managing TSMP has resulted in a lack of coordination between agencies and this eventually resulted in a lack of consideration and participation in the management of TSMP. The existing top-down governance structure must be combined with a bottom-up approach to increase coordination effort between agencies and that should be desirable to increase networks of TSMP.

Management shortcomings were largely seen to extend from these issues with governance. There had never been ongoing and continuous programs of education or outreach in any of the TSMP communities. Ironically, such programs were conducted before the park was established to gaining support from the residents, especially those with NCR, but they ceased once the park was established officially. Study respondents indicated that they were not aware of any mechanism for participation in management that would consider the restoration of local values and the improvement of livelihoods, the resolution of conflicts, the improvement of transparency and accountability and, most importantly, the integration of customary institutions into management.

Many PAs in Sabah, terrestrial or marine, are actually obliged to accommodate customary laws. In many cases, customary laws have not recognized and sometimes have been altered for conservation purposes (Doolitle, 2003). However, TSMP is the first park that has officially recognized customary laws and has planned for co-management with local communities. However, implementation is yet to occur. Lack of intensive and comprehensive efforts to integrate native customary traditions into the contemporary park management system have resulted in limited mechanism to involve communities in park management. On paper recognition of NCR is useless unless Sabah Parks take proactive efforts to honor NCR in practice it its real management structure through a co-management approach.

In a top-down system such as the one that has been studied and where co-management has been expected according to the initial documentation setting up the MPA but has failed to be implemented, it is necessary that Sabah Parks now reaches out again to local residents, perhaps

initially through the establishment of information sessions, workshops and educational programs. Given the limited assets currently at the disposal of local residents, which have been described above, and the hostility that exists towards the park authority, it is unlikely that grassroots initiatives will occur independently. Therefore, it is necessary that Sabah Psrks takes initiatives to rebuild the confidence of local residents. This is necessary if it is to better achieve its own conservation objectives as well as to support the sustainability of local livelihoods.

6.5.4 Implications for the progress of the discussion of MPA

It can be argued that the findings and discussion of empirical evidence in TSMP would be difficult to transfer to some other countries unless they have similar attributes such as on the customary rights entitlement. Nevertheless, the case study is a clear demonstration of what can happen when the rights of residents are ignored and hostility builds which reduces support for the management authority, making it more difficult for them to achieve their own conservation goals while, at the same time, undermining local livelihoods. The case study contributes insights into the application of an institutional approach in MPAs, sustainable livelihoods (SL), and ecotourism thinking.

Institutional approach in governing MPAs

Researches about common-pool resources have highlighted the rich diversity of organizations that structure human collective actions. There are cases of successful management systems and institutional approaches that address resource allocation problems, and which take different forms in different settings (Carlsson and Berkes, 2005). In some MPA cases involving

customary institutions, rules have been written into management plans that clarify governance arrangements, articulate customary tenure claims, and detail sanctions for their transgression (Cohen and Steenbergen, 2015). In essence, this study explains why the necessary institutions have failed to emerge. The absence of participative structures contributes to the failure of management, as customary institutions have been neglected in park management. It is argued that co-management is an approach that can help to resolve resource management problems through the creation of partnerships. However, the empirical evidence of the study also demonstrates it is helpful to view the institutional approach toward park governance from a SL perspective. It is necessary to address the livelihoods of resident communities if conservation outcomes are to be achieved.

Sustainable Livelihoods

Livelihoods studies often focus on analysis of the assets of rural people. The present study focuss on a poor and marginalized group of MPA communities with few assets that can be used to diversify livelihoods strategies except for the entitlement of some to native customary rights. The empirical evidence demonstrates the many links among power, governance, and livelihoods sustainability. The study focuses on the institutional component in a SL framework in order to understand the relationships among sustainable livelihoods, marine resources, and broader socio-political and institutional forces. Many SL studies gloss over issues of power and political capital. In contrast, this study argues that they are very compelling influence on livelihood outcomes, especially in an MPA context. In sum, this study advocates that livelihood approaches

need to recognizing and analyze the influence of power and politic within the institutional structures and processes context of SLF and as part of the capital assets of studied participants.

Ecotourism

In theory, MPAs are often ideal stages for the development of ecotourism as an alternative and complementary strategy to fishing activities because they are areas where ecosystem and community sustainability are interdependent. Therefore, development scholars often suggest ecotourism as an alternative or complementary livelihood activity for previously fishing-dependent communities living within or in proximity to MPAs (WWF 2005, as cited in Brondo and Woods, 2007, pp. 5). Studies also have demonstrated that the success of ecotourism development is only possible when all stakeholders are able to participate fully in the development of a practical strategy for resource management and sustainable development (Brondo and Woods, 2007). The case study confirms this. The pending ecotourism development in TSMP has not occurred in large part due to poor governance in managing the park and failure to gain the communities' support. By linking institutional and SL approaches, this study suggests that the institutional arrangements in MPAs are crucial to the development of sustainable local livelihoods.

6.7 The strengths and weaknesses of the SL framework

This study espoused SLF because it was developed from a multi-disciplinary lens (economic, environmental, socio-cultural contexts). It was used to analyze livelihood change in TSMP and the strategies embraced by the communities to cope, adapt and survive with the establishment of

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a marine protected area. Most importantly, SLF stresses how institutions and organizations mediate livelihoods strategies. By conducting institutional analysis, the result explains how and why diverse inputs (acquisition of customary rights, legal status, local institutions) are linked to strategies and livelihoods outcomes. The study illustrates that the asset pentagon in SLF (financial, social, natural, human, and physical) is not sufficient to guarantee the capability of people to choose strategies to diversify and sustain their livelihoods. The case of TSMP's communities demonstrates that even if the people acquired all of the assets to choose their own livelihoods strategies, without institutional structures to support them i.e. organizations, and processes to empower them i.e. customary rights and legal status, they would still remain with their livelihoods depressed with little progress towards SL. Through application SLF and a livelihoods perspective, the approach emphasizes the complex processes requiring in-depth qualitative understandings of power (co-management), and institutions that would eventually influence the well-being of TSMP people (economically, environmentally, and socio-culturally).

According to Scoones (2009), one of the reasons that could contribute to the decline in use of a SL approach is that SLF gives limited explicit attention to power and politics and fails to link livelihoods and governance in the development debate. This is not absolutely true: this study has shown that the institutional context in SLF is crucial in assessing the livelihoods strategies of communities in TSMP. Institutional analysis examines relations of power among institutions. However, it could be partially true for power and politics are crucial elements that influence the institutional support for livelihoods strategies, and the political context is not centered or highlighted in SLF, although it is implied by the identification of institutions and organizational

relationships. However, it is difficult to analyze and discuss political aspects of resources management directly within a livelihoods perspective. It has been argued that it is possible and sensible to add political capital in the asset pentagon to show that political power is also an asset that is used and influences livelihoods strategies (Baumann, 2000; Scoones, 2009). Nevertheless, this study suggests political aspects could be further analyzed and discussed by adopting a longer-term and strategic understanding of the social and political realities of power before and after the establishment of TSMP. However, in order to do this, a longer ethnographic study would be needed.

6.8   Chapter summary

Co-management is seen as being an effective and appropriate way of managing TSMP. Informed by institutional and ecotourism theories, and a SL approach, co-management could be a mechanism that will support organizational change through the creation of efficient institutional arrangements. It could act as a catalyst to achieve SL outcomes through meaningful participation from communities and other stakeholders of TSMP, including livelihoods diversification through ecotourism. Moreover, co-management should be followed in managing TSMP since some of the communities possess NCR, which should provide them with legal standing to participate in planning and decision-making processes. Failure to recognize the role of communities with NCR in managing TSMP will make the achievement of the park's objectives more difficult.

However, at the time of study, co-management had not yet been implemented in TSMP so that it was not plausible to evaluate its effectiveness. Nevertheless, institutional analysis has shown that co-management is supported by the park authority, the communities, and other

stakeholders. Therefore, the challenge is now to create a balanced approach to co-management. Recommendations have been made to facilitate the implementation of co-management in TSMP. Similarly, ecotourism has also yet to be put in place as means of livelihood diversification. Therefore, again, the impacts cannot be evaluated. However, positive perspectives exist regarding ecotourism on the part of the communities and other stakeholders. If developed appropriately, with equitable sharing of benefits, it could be a means of diversifying livelihoods as well as a way of enhancing awareness of the importance of conservation among both residents and tourists.

Chapter 7

Conclusions

7.1 Research results in response to research objectives

The previous two chapters discussed the findings of the study, which were obtained as a result of research conducted to meet the following objectives which were set forth earlier: 1) To investigate the impacts of park establishment on the communities' livelihoods and strategies that can cope with changes and challenges; 2) To identify the current institutional arrangements and the factors that characterize them; 3) To identify the role of institutional arrangements i.e. co-management, and processes i.e NCR, in encouraging the communities' participation in marine park development and in sustaining livelihoods; and 4) To investigate whether increasing tourism activities in the region affect communities' livelihoods strategies. The objectives were addressed by using the mixed methods approach that included analyzing qualitative data from household surveys, the organization of participatory events, the undertaking of in-depth interviews with stakeholders, participant observation, and performing quantitative analysis with SPSS to support the interpretation of qualitative data.

Objective number one was achieved by using SLF to guide the analysis of how people construct their livelihoods, their assets and strategies, and the vulnerability context in which they operate. Participatory events that were used included asset mapping, and eliciting chronological and key events from informants, and these sources of information contributed most of the data required for livelihoods analysis. To meet objective number two, an institutional analysis was performed to identify current institutional arrangements and factors that characterize them. It is

very important to acknowledge and understood these factors in order to achieve objective number three and, most importantly, to understand the situation in TSMP. Consequently, to achieve objective number three, an institutional analysis that included and exploration of structures (institutions and organizations) and processes (NCR, policies) was undertaken. This included an investigation of current institutional arrangements, their roles, NCR, and their implications for SL. This enabled the identification of the roles of institutional arrangements in influencing the participation of communities in managing TSMP, with implications for their ability to sustain their livelihoods. The SLF framework was also used to help to understand the significance of organizational structure, social norms and institutions, and partnerships, in marine park settings. Last but not least, in order to investigate the role of ecotourism as a means of livelihood diversification, an analysis of ecotourism was performed. Objective number four, concerning tourism, is significant for this study because ecotourism is identified in the management plan as a means of livelihood diversification. Hence, the status of ecotourism and, particularly, community participation in ecotourism was assessed to understand its role in local livelihoods. Although the findings indicate that the resident communities in TSMP are not involve in ecotourism activities, the SLF analysis provides rich data and an explanation of the connections between livelihood strategies and the institutional context that have resulted in the lack of involvement in tourism situation in TSMP.

7.2 Research results in response to key research components

This section summarizes findings according to the key research components that were identified in the research questions.

7.2.1 Livelihoods

Issues of park establishment are often concerned with park-people relationships and commonly include property-rights regarding land, access to resources, livelihoods and frequently involve concerns regarding poverty (Ghimire and Pimbert, 1997; Nepal, 2002; Scherl, 2004). The fieldwork data from interviews, household surveys, and participatory events demonstrate that park establishment resulted in negative impacts on local livelihoods and traditional ways of living. Moreover, livelihood depression and poor community participation in park management creates challenges for environmental conservation for disappointed community members continue to extract marine resources from the sanctuary zone and use illegal harvesting methods such as fish bombing. Thus, a main factor contributing to the detrimental effects of park establishment on local people is the failure of Sabah Parks and other related/relevant agencies to assist in the creation of coping strategies to sustain community livelihoods. From the household surveys and in-depth interviews, with their involvement in on-going educational and information-sharing sessions, communities in TSMP were open to conservation and resource protection but with one important condition: the provision of support for livelihood strategies that would sustain them and their families. In the absence of coping strategies to diversify community livelihoods, it is unlikely for the park authorities will achieve the objectives for which the park was established.

7.2.2 Institutional arrangements

Institutions for resources management are very important, especially regarding marine resources as examples of common resources whose uses are dictated by collective action. Through the SLF, it is understood that institutions that are based on and changed because of collective action can produce collective incomes that are shared equitably (Tao, 2006).

The institutional arrangements of TSMP should have been established to reflect the importance role of the laws, practices, and customs involving TSMP stakeholders. However, until the present time, the arrangements have been made only by and consist of Sabah Parks staff: hence, institutional change is unlikely to occur. Prior to park establishment, the management plan highlighted the importance of co-management in TSMP. Therefore, during the study and survey period by SIP, they identified stakeholders and assured stakeholders e.g. local communities, that they would be involved in managing TSMP. Despite the sound planning highlighted in the management plan, Sabah Parks was unable to orchestrate a favorable management regime involving relevant stakeholders of TSMP. Institutional arrangements in TSMP were hugely influenced by the state's centralized administration. In fact, all matters regarding TSMP were decided at the top management level by the Board of Directors and Trustees of Sabah Parks who were appointed by the Head of State of Sabah. According to the interviews with Sabah Parks officers, they frequently fly to Kota Kinabalu, where the headquarters is located, and sometimes they have to stay there for long time for meetings and other work commitments since the TSMP office has not been given authority to govern TSMP. Although TSMP officers would bring matters from the ground to the attention of upper level management, e.g. the need for co-management, the needs of local sea-rangers, decisions were

made solely by the Boards, who had little knowledge about what was happening on the ground (SH007, 2012). Moreover, none of the Trustees represents local TSMP stakeholders. This contrasts with the situation in other parks in Sabah. One important factor discovered during the interviews with important stakeholder was that, it was suggested, political intervention was apparent in dealing with Sabah Parks governance (SH026, 2012). A stakeholder further described that the highly political intervention has made Sabah Parks change its rules and regulations to accommodate the interests of certain people, (who have very strong political backup), including the interviewee, in relation to seaweed farming activities. Such situations show that the institutional arrangements in TSMP have failed to recognize adequately the historical, cultural and social context that should shape the institutions, especially when customary rights/ laws are significant in managing the protected area. As previously discussed in Chapter Two, when analyzing an institution it is necessary to determine the opportunities provided by the institution that induced the development of an organization and the ways in which, ideally, partnerships should be built on trust and shared goals. Moreover, the arrangements for MPA management and their institutions are subject to change, and an appreciation of exactly who makes the changes is relevant to understanding the outcomes. Unfortunately for TSMP, the institutional structure i.e. government agency, and processes i.e. state's policy, do not induce the organization i.e. Sabah Parks to focused on real partnerships. Hence institutional change and new management arrangement are unlikely to occur unless a decentralized administration and people-centered policies are espoused.

7.2.3 Institutions and Native Customary Rights (NCR)

Prior to park establishment, NCR was the institutional capital of native Bajau, which supposedly empowered them to participate in discussions and information-sharing sessions. NCR is significant in prioritizing the rights of native people to remain on their land to sustain their well-being, and should be given priority above all other aspects. The LCF was formed because of the significance of NCR; 1) LCF consist of TSMP landowner(s) and inheritors as constituted under NCR; 2) Disagreement with the park establishment by NCR holders should, consequently, invalidate the project to establish the park. Moreover, the NCR of native people was written and highlighted in the TSMP declaration statute signed by the His Excellency the Head of State of Sabah. These statements demonstrate the significance of NCR in involving native people in park management by recognizing their rights to stay and continue with their daily life. This should have made them one of the main stakeholders in TSMP's management. Although NCR was deemed to be significant and important in giving the rights for people to stay on their land, NCR has not enabled communities with the right to be involved in park management in terms of deciding and planning for livelihood diversification, especially when they have not been allowed to continue with their traditional livelihood activities. Based on the findings of the household survey and participatory events, co-management is the key institutional arrangement issue in TSMP for, without it, TSMP can hardly be implemented. Previous initiatives have essentially failed due to lack of communication and participation from TSMP communities (SH007, 2012). Institutional arrangements i.e. co-management and institutional processes i.e. NCR are strongly interrelated. NCR encourages co-management and co-management would support activities to improve livelihoods and overall well-being of residents. The failure and abandonment of tourism

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projects without prior consultation and discussion with local communities demonstrate that people with NCR have the right to participate in park management, especially in the planning and decision-making processes.

7.2.4 Ecotourism as a means of livelihood diversification

Although Semporna is internationally known for its dive-tourism industry, TSMP has not yet been developed and promoted as an ecotourism destination, although this would benefit local communities. According to informal conversations with a few tourists met in TSMP, most suggested that TSMP is lacking of tourism facilities and is not tourist-friendly. However, local residents in TSMP were aware of the high volume of tourists visiting islands in Semporna and, in fact, they were ready to be involved in ecotourism in TSMP if that was the plan for livelihood diversification. Most respondents demonstrated interest in diversifying their livelihoods through ecotourism and many suggested a few other activities that would benefit them financially. Overall, the investigation demonstrated that local communities are in favor of ecotourism development in TSMP but, at the same time, they expressed doubt whether they could be involved in future ecotourism planning and development. Hence, there is a potential for further research or a sequence event following the present study, namely to make suggestions to guide potential ecotourism development based on the communities' perspectives.

7.3 Research limitations

This section discusses the limitations encountered that might reduce confidence in the findings of the present study and could be relevant as guidance in undertaking further research. Time is one of the major limitations in this study. Undertaking research on communities, specifically on

native people, requires a longitudinal study such as is often espoused in ethnographic research in order to yield data that could contribute to greater understanding of the subjects being researched. This study involved three different native groups, requiring the researcher to take some time to build relationships based on trust and to feel comfortable in the communities, in order to get them to engage in the study voluntarily. Moreover, marine environmental conditions such as the tides, the monsoon, the weather, and safety issues (i.e. the high risk of kidnapping since Semporna is located near to the international border between Malaysia and the southern Philippines where militants are suspected as being responsible for a number of kidnapping tragedies) limited the survey time to only two to three hours of interviewing per day.

The translation from Malay to the Bajau, Bajau Laut and Suluk languages by research assistant during interviews was also time-consuming since the process had to be done with care to ensure that questions and responses were not misinterpreted. In addition, translating the data from the Bajau, Bajau Laut, and Suluk languages to Malay by the research assistant and then from Malay to English by principal researcher was a challenging task. Unfortunately, the principal researcher neither speaks nor understands Sabah native languages and had to rely entirely on the translation made by the research assistant. The translations might not be perfectly according to what the respondents would like to express or what the principal researcher would like to discover, however the answer patterns for each group of respondents are consistent and validate the researcher's understanding. Furthermore, regular discussions with the research assistant and conversations with local people from Semporna, as well as from TSMP, also validated and enriched understanding of the information that was collected. Similarly, the

translation from Malay to English, which was conducted after the fieldwork was completed, was done cautiously and carefully to avoid misinterpretation and to maintain the authenticity of the data.

At the same time, this study involved research on institutional structures and processes that inevitably involved power, politics and bureaucracy. In many developing countries, including Malaysia, an exclusive top-down approach in governance and administration is still being espoused and this was applied in TSMP governance. Therefore, analysis on institutions must involve micro (at the park) and macro (at the state) levels in order to obtain complete set of data to be analyzed and compared. However, to gather and assess concurrently micro and macro levels of governance for TSMP was impossible in three months of fieldwork. The bureaucracy in local government is a major problem for researchers in gathering information. For example, an interview with the Semporna District Officer was arranged early during the fieldwork; however it was cancelled and postponed several times within three months and the matter only occurred when one of the stakeholders who is an influential person in Semporna introduced the researcher to the district office.

One of the objectives of this research was to investigate whether the people of TSMP support ecotourism development and to assess the performance of ecotourism as a means of livelihood diversification. Unfortunately, the plan to develop ecotourism is not yet implemented and, hence, many questions regarding ecotourism in the questionnaires were left unanswered. Although tourism is the most important contributor to the economy of Semporna, people in TSMP have yet to and benefit from it. This was only discovered at the site, although it is also a

major unexpected finding of the research. Critically, some parts in the ecotourism section of the survey had to be modified and new questions were included once the real situation in the site was understood. However, it was still reasonable to explore perception, expectations and hopes regarding future ecotourism development. On the positive side, data collected during this study could be a benchmark for further research on ecotourism as livelihood diversification and an input to guide ecotourism development in the marine park.

In summary, ideally a study such as the one reported here ideally requires longitudinal data that is often obtained through an ethnographic method in order to assess the changes occurring before and after park establishment, including changing government policies especially on community and rural development and parks rules, as well as the seasonal changes in livelihoods that occur due to weather. Although much of the necessary data could be collected by fieldwork, surveys and a participatory approach, long community-researcher engagements lead to greater understanding and strengthen conclusions. However, limitations of such method lie in the considerable costs of time and money that they involve. Hence, it is necessary to explain this in the next section.

7.4 Opportunities for future research

The early sections of this conclusion summarized the findings of this study regarding the research objectives and the key research components outlined in the research questions. Nevertheless, the findings lead to other questions that open opportunities for future research, especially to further examine the key research components in a marine parks or protected areas context.

Few studies have been conducted from a SL perspective in protected areas, especially marine protected areas, since many marine protected areas have few or no inhabitants. Most studies, and the initial context of the SL approach, focus on rural development and rural poverty reduction and not specifically on protected areas in a marine environment. Nonetheless, the SLF used in this study shows that an SL approach is appropriate and can be helpful in studying marine park communities that are struggling with livelihoods depression and new obligations associated with resource use regulation. Specifically in TSMP, future research could compare livelihoods before and after park establishment once new livelihood options, e.g. giant clam hatching, and ecotourism are in place. The impacts of alternative livelihoods mixes on community development and the marine environment could also be assessed from a SL perspective.

Through SLF, this study demonstrated that, in the absence of institutional support to recognize native rights in development in a practical way, it is difficult to accomplish park objectives and, especially, to get community support for park development. It is crucial for future studies to focus on the institutional context in developing a framework for co-management. This will require analyses of both micro and macro levels of management. Such an approach necessitates the establishment of a strong social network in order to have access into every level of management. Ultimately, full support and cooperation from both local and higher level governments, NGOs, communities, private sector stakeholders is required to facilitate the pre-development assessment for multi-level co-management. At the same time, future study is suggested through comparative approaches rather than single-case analysis, to compare multiple

governance systems in protected to share and learn from experiences and to develop an empirically relevant theory of common property resources, such as marine resources.

More research is also required into ecotourism development and ecotourism impact assessment in marine parks. Such studies should include historical and cultural perspectives on the development of ecotourism as a means of livelihoods diversification. Such studies are very much need in protected areas where local communities have legal rights to resource use.

7.5 Summary of findings

The emergence of paradigm for governing PAs emphasized the importance of community participation, local stewardship, and access to the decision-making process in order to achieve PAs management goals (Phillips, 2003; Lai and Nepal, 2006). Often, ecotourism has been seen as a tool for community participation and empowerment, and as a means to link biodiversity conservation with a development agenda, as demonstrated at the UN Summits such as Rio 1992. Further, Staiff and Bushell (2004) suggested that conservation outcomes are better achieved when local populations and their land rights are respected and made an integral part of the management regime. Based on the theoretical and empirical links between institutional arrangement, ecotourism and community, this research has examined how institutional structures and processes i.e. land rights, influence the participation of native communities in protected areas' management arrangements, improving their livelihoods and ultimately their well-being in a protected area. It has been found that, so far, institutional arrangement has been largely ignored in the establishment and the operation of TSMP.

Building upon the existing body of knowledge, this research contributed to the current discourse in a number of important ways. First, by actively engaging a number of theoretical frameworks, the significance of institutional structures and processes was viewed beyond the institutional context, with the results being used to inform livelihoods initiatives and policies in broader settings especially in marine park context (more discussion in section 6.5.1). Second, through the collection of empirical evidence linked to the relationship between institutional structures, protected area management, and people's livelihoods, an advanced theoretical understanding of the associated concepts was formed (Figure 6.3). Third, by documenting communities' perspectives on the various meanings embedded within their traditional environment, the researcher gained a greater understanding of the rationale behind the communities' hostility of park's regulations – this being the depressing of livelihoods income without the opportunity to further diversify their livelihood strategies. As a result, this research demonstrates the importance of investigating the dynamics of change in real time, such that the participants' lived experiences can be accessed to inform an advanced understanding of the associated development initiatives especially on securing livelihoods sustainability.

In addition to advancing our understanding of the dynamic interactions between institutional structures and processes, ecotourism, and community, this research has advanced culturally-appropriate livelihoods research by employing the concepts of a sustainable livelihoods approach and shifting the scale of analysis to a people-centred, household-level perspective. The SL framework approach is the key component in this study that has been used to connect the other concepts. Many SL analyses focus on the asset pentagon, one of the main

components in the framework. However, this study has given priority to the institutional structures and processes component. A participatory approach has been espoused to allow local communities to analyze and evaluate their livelihoods assets, issues and needs, and to document their perspectives at the household level through questionnaire surveys, focus group meetings and participatory events. This study has applied a people-centered, SL approach and it is the first[22] to apply culturally appropriate methods to explore the livelihoods and rights of native communities living in a Malaysian marine park. By doing so, the adapted conceptual framework served as a 'lens' for viewing and identifying the culturally embedded meaning associated with park establishment.

In summary, through combining interactive appropriate research methods with a sustainable livelihoods approach, the researcher found that institutional inefficiencies have contributed substantially to the many negative impacts of park establishment, such as livelihood depression and the associated hostility towards Sabah Parks. The case of TSMP involves residents with NCR rights and, thus, sustaining their livelihoods should have been a priority in order to obtain their cooperation and willingness to engage in the co-management of the park. It shows that even where legal rights exist, they can be ignored. Co-management is needed in order to achieve mutual understanding and to cater adequately for stakeholders' needs and concerns. It was also determined that local residents hold very positive perspectives towards ecotourism development as a livelihood strategy provided that they can be involved and share in the benefits. Local communities did not reject the abandoned ecotourism projects that exist in TSMP; rather

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[22] To date, the author has not found any other examples.

weak governance that failed to treat local communities according to their entitlements undermined initiatives. Although some local residents possess entitlements in terms of land rights, both community well-being and conservation objectives are difficult to accomplish with the absence of efficient institutional arrangements to manage the park. Yet, the fact that TSMP's communities hardly cope and adapt to the ever-changing environmental and economic conditions that compose their narratives suggests that their survivability are resilient but not their livelihoods resources.

Appendix A:

IUCN Management categories of Protected Areas

Category	Description
I	Strict Nature Reserve/ Wilderness Area: Protected area managed mainly for science or wilderness protection.
Ia	Strict Nature Reserve: Protected area managed mainly for science.
Ib	Wilderness Area: Protected area managed mainly for wilderness protection.
II	National Park: Protected area managed mainly for ecosystem protection and recreation.
III	Natural Monument: Protected area managed mainly for conservation of specific natural features
IV	Habitat/ species Management Area: Protected area managed mainly conservation through management intervention.
V	Protected Landscape/ seascape: Protected area managed mainly for landscape/seascape conservation and recreation.
VI	Managed Resource Protected Area: Protected area managed mainly for the sustainable use of natural ecosystem.

Source: *(IUCN, 1994)*

Appendix B: Research Ethics

University of Waterloo – Office of Research Ethics

Date: October 24th, 2012
Re: Agreement to Assist with the Research
Attn: Stakeholders associated with Tun Sakaran Marine Park

Dear Sir/Madam,

This letter is an invitation to consider participating in a study I am conducting as part of my PhD degree in the Department of Geography and Environmental Management at the University of Waterloo under the supervision of Professor Geoffrey Wall. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part.

In June 2004, the Sabah state government project was convinced by project authorities (Marine Conservation Society UK and Sabah Parks) to officially establish the Tun Sakaran Marine Park (TSMP), the only marine protected area in Sabah to include private land and recognize the native customary rights especially on land matters. This event was especially significant because there are over 2,000 people with different ethnicities living within the marine park. This called for a different and collaborative approach in dealing with the park and marine resources management. Co-management was introduced so that people living in the park could continue to be fully involved in the planning processes and could see that they will share the benefits of implementing the management plan. Other interested parties also needed to have the opportunity to comment on management strategies and put forward their points-of-view. Therefore, it is crucial for the present study to analyze issues and problems regarding locals and stakeholders' involvement and the cooperative approach that had been mentioned in the earliest management plan.

Participation in this study is voluntary. It will involve an interview of approximately 30 minutes in length to take place in a mutually agreed upon location. You may decline to answer any of the interview questions if you so wish. Further, you may decide to withdraw from this study at any time without any negative consequences by advising the researcher. With your permission, the interview will be audio recorded to facilitate collection of information, and will be destroyed once transcribed for analysis. All information you provide is considered completely confidential. Your name will not appear in any thesis or report resulting from this study, however, with your permission anonymous quotations may be used. Data collected during this study will be stored in a secured locked storage in Malaysia and electronic data will be stored in a password protected computer and only accessible by principal researcher. Electronic data will have personal identifiers such as your name removed. Once the data is transferred to Canada, it will be retained for 3 years in a locked office in my supervisor's lab, and only researchers associated with this project will have access to it. There are no known or anticipated risks to you as a participant in this study.

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me at 0196818313 or by email at naabubak@uwaterloo.ca. You can also contact my supervisor, Professor Geoffrey Wall at 519-888-4567 ext. 33609 or email gwall@uwaterloo.ca.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. However, the final decision about participation is yours. If you have any comments or concerns resulting from your participation in this study, please contact Dr. Maureen Nummelin, the Director, Office of Research Ethics, at 1-519-888-4567, Ext. 36005 or maureen.nummelin@uwaterloo.ca.

Through studying existing institutional arrangement in TSMP, this research will be able to assist park management in achieving co-management strategy outlined in the management plan for future ecotourism developments. Thus your participation in this study is important in providing insightful views and opinions towards the cooperative approach.

I very much look forward to speaking with you and thank you in advance for your assistance in this project.

Yours Sincerely,

Nor Azlina Abu Bakar
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Department of Geography
University of Waterloo
Waterloo, ON
Canada N2L 3G1
Email: lynn_azlina2000@yahoo.com or naabubak@uwaterloo.ca

CONSENT FORM

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

_____

I have read the information presented in the information letter about a study being conducted by Nor Azlina Abu Bakar of the Department of Geography at the University of Waterloo. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses.

I am also aware that excerpts from the interview may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher.

This project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. I was informed that if I have any comments or concerns resulting from my participation in this study, I may contact the Director, Office of Research Ethics at 519-888-4567 ext. 36005.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.
☐ YES ☐ NO

I agree to have my interview audio recorded.
☐ YES ☐ NO

I agree to the use of anonymous quotations in any thesis or publication that comes of this research.
☐ YES ☐ NO

Participant Name: _____ (Please print)
Participant Signature: _____
Witness Name: _____ (Please print)
Witness Signature: _____

Date: _____

Appendix C: Household survey

A)   Introductory Questions

1.   Name and Age:

2.   Date/ Time:

3.   Gender: Male = 1; Female = 2

4.   Ethnic group affiliation:

5.   Village:

6.   Size of household:

7.   How long have you lived in this area?

8.   Give reasons why you moved into this area

    ( ) Native of the area

    ( ) Farming (seaweed)

    ( ) Fishing

    ( ) Other (specify):

9.   How do you characterize your homestead?

    ( ) Permanent

    ( ) Temporary

10.   Do you own the land or other property in this park?

11.   Do you actually entitled for that land or property?

B)   Livelihoods Analysis

12.   What do you do to make living?

13.   Has park establishment impacted your livelihoods in a positive and/or negative way?

14.   How is fishing/ existing livelihoods going these days?

15.   What has changed in the last few years?

16.   When is the most difficult time and how do you manage during that time?

17.   What are your feelings about the park?

    1. Strongly unfavourable to the park establishment

    2. Somewhat unfavourable to the park establishment

    3. Undecided

    4. Somewhat favourable to the park establishment

5. Strongly favourable to the park establishment

Why: _____

18.   How do you manage the impacts of park establishment?

19.   From the list provided, which livelihood activities are your household currently involved in?

    i.   ( ) Seaweed farming

    ii.   ( ) Hunting

    iii.   ( ) Fishing

    iv.   ( ) Tourism

    v.   ( ) Formal employment (specify):

    vi.   ( ) Informal employment (specify):

    vii.   ( ) Government assistance

    viii. ( ) Other (specify):

20.   List and rank the challenges that affect your household livelihood security?

21.   If ecotourism activities were not working out well in your area, what would your plan be to cope with the change?

22.   How are you coping with the current restrictions in this park?

C)   **Structures and Processes Analysis**

23.   Has the park staffs involved you or the community formally or personally in any way (planning, decision-making process, education, information, etc.)?

24.   Are there any factors that encourage your participation in those activities?

25.   What is the legal status that allowed you to participate?

26.   What are the native customary rights and state laws affected you?

27.   Are native customary rights giving you better opportunity to involve rather than state laws?

28.   Are there any local institutions in your community?

29.   In what shape do these institutions exist locally? Formal or informal?

30.   Who is the most helpful person that comes to the village?

31.   What are your livelihoods priorities and what laws/ policy relevant to these priorities?

32.   What is the policy? Who makes policy in those sectors?

33.   What resources can people draw on to influence policy?

34.   What opportunities exist for people to influence policy directly and indirectly?

35.   Is there anything else I should know about?

D)   Ecotourism Analysis

36.   What is your definition of ecotourism?

37.   What are your feelings about the introduction of ecotourism in the park?

1.Strongly disagree

2.Disagree

3.Neither agree nor disagree

4.Agree

5.Strongly agree

Why:_____

38.   Is ecotourism important for your livelihood?

39.   Is the protection of marine resources important to you?

40.   Do you see any benefits or problems if ecotourism was to increase: a) to yourself? b) to the community?

41.   Who is getting richer?

42.   Can you think of a household that is better (worse) off now than before?

43.   Why are they richer (poorer) - what happened?

44.   Is the legal status i.e. native customary rights and the state laws influence your participation in ecotourism activities that eventually influence the benefits distribution from those activities?

45.   If yes, what are the rights or laws that affect your involvement and benefits distribution?

46.   Do ecotourism activities contribute to the needs and improved livelihoods outcomes?

47.   How significant is the contribution compared to other sources?

1. ( ) Very significant

2. ( ) Significant

3. ( ) Neutral

4. ( ) Insignificant

5. ( ) Very insignificant

48.   Do they match the strategies that you use when selecting and combining activities?

49.   Do the ecotourism activities affect access to marine resources?

50.   Do the ecotourism activities change access to social networks of households and the broader community?

51.   Do the ecotourism activities strengthen or undermine community co-operation and institutions, particularly institutions for marine park management?

52. Do the ecotourism activities change the community's relations with outside world, in terms of influence, co-operation or conflict?

53. Do the ecotourism activities affect any of the external forces – organizations, institutions, policies market, and social norms – that influence local livelihoods?

54. Do the ecotourism activities change policies and behaviour of others towards local community?

55. Do the ecotourism activities change local people's access to institutions and their influence over them?

56. How the benefits from ecotourism are financially sustainable?

57. Do you believe tourism revenues are used wisely by local authorities?

1. Always

2. Sometimes

3. Neutral

4. Very rarely

5. Never

Why:_____

Appendix D: Stakeholders' Interview Guide

STAKEHOLDERS	QUESTIONS
• At household/ community level	**LIVELIHOODS ANALYSIS/** CONSIDERATIONS: • What outcomes do people achieve? What are the assets that they hold? What activities are they engaged in? What are their aspirations and livelihoods strategies? What is due to shocks or externally driven trends? • How and why are livelihoods changing? What are the impacts of the park to the livelihoods? What changes are short-term coping strategies, and what are long-term adaptive strategies? EXAMPLE QUESTIONS: • What do you do to make living? What are you trying to achieve through you activities? How is fishing/ existing livelihoods going these days? What are your aspirations for your family/ children? How do women's participation in livelihoods activities differ from men's? • What has changed in the last few years? What is the most difficult time and how do you manage during that time? Has park establishment impacted your livelihoods in a positive and/or negative way? How do you manage the impacts? What are your feelings about the park? **POLICIES, INSTITUTIONS AND PROCESSES ANALYSIS** EXAMPLE QUESTIONS: • Are there any local institutions in your community? In what shape do these institutions exist locally? How are relationships with outside institutions these days? Who is the most helpful person that comes to the village? What other institutions and organisations affect local responses to policy? What other local institutions and organisations might policy affect? • Has the park staffs involved you or the community formally or personally in any way (planning, decision-making process, education, information, etc.)? Are the any factors that encourage your participation in those activities? What is the legal status that allowed you to participate? What are the native customary rights and state laws affected you? Are native customary rights giving you better opportunity to involve rather than state laws? • What are your livelihoods priorities and what laws/ policy relevant to these priorities? What is the policy? Who makes policy in those sectors? • What resources can people draw on to influence policy? What

	opportunities exist for people to influence policy directly? What opportunities exist for people to influence policy indirectly? • Is there anything else I should know about? **ECOTOURISM ANALYSIS** • What is your definition of ecotourism? • What are your feelings about ecotourism in the park? Is the protection of marine resources important to you? Do you see any benefits or problems if ecotourism was to increase: a) to yourself? b) to the community? Who is getting richer? Can you think of a household that is better (worse) off now than before? Why are they richer (poorer) - what happened? • Is the legal status i.e. native customary rights and the state laws influence your participation in ecotourism activities that eventually influence the benefits distribution from those activities? If yes, what are the rights or laws that affect your involvement and benefits distribution? • How do ecotourism activities contribute to the needs and improved livelihoods outcomes? How significant is the contribution compared to other sources? Do they match the strategies that you use when selecting and combining activities? • Do the ecotourism activities affect access to marine resources? Do they change access to social networks of households and the broader community? Do they strengthen or undermine community co-operation and institutions, particularly institutions for marine park management? Do they change the community's relations with outside world, in terms of influence, co-operation or conflict? • Do the ecotourism activities affect any of the external forces – organizations, institutions, policies market, and social norms – that influence local livelihoods? Do they change policies and behaviour of others towards local community? Do they change local people's access to institutions and their influence over them? • How the benefits from ecotourism are financially sustainable?
• At park management level - Sabah Parks representative/ site level park manager	**PARK OPERATIONS ANALYSIS** EXAMPLE QUESTIONS: • When the park was officially established? How large is the park? Who is responsible for management? Does a management plan exist? What are the park's goal/ vision? Are they endangered species/ special features here? Can you estimate the number of tourists received annually? What is the park's budget and funding resources? Are funds put specifically towards conservation and/or monitoring activities? What are the permitted park/ resources uses? Zoning regulations? Research activities?

	How strong is the enforcement capacity and what are the associated penalties? What are the biggest constraints for park managers? What types of infrastructure exist in the park? Are they any ecotourism related enterprise/accommodations offered in the park (private/ park operated)? Are there other services or anything else about the park you would like to tell me?
	• How many staff work for the park? What percentage is from the local community? Are they on-going training opportunities available to the staff? Have there been conflicts with other stakeholders relevant to the park i.e. conservationist, local communities, tourists, tourism operators, etc.?
	• Were any people displaced when the park was established? If yes, were they provided with compensation? In what form? Are local people permitted to use the marine resources? Do illegal activities occur? What are the major threats/pressures to the park? Have locals been involved in planning and/or management in any way? Can you comment on the relationships between park staff and community residents? What have been the benefits and negatives to the community as a result of park establishment? Will legal status (recognized by native customary rights and state laws) limit local people's opportunities to benefit from the park?
	POLICIES, INSTITUTIONS AND PROCESSES ANALYSIS • Are local communities active and involved in managing their own development (claiming their rights and exercising their responsibilities)? • Is there a responsive, active and accessible network of local service providers (private sector, government, or NGOs)? • What institutional arrangements are currently in place? Why are they in their current form? How could these be developed or modified to improve access and participation for local community? • How are relationships with outside institutions these days? What other institutions and organisations affect the management of the marine park? • At local government level (Semporna district) are services facilitated, provided or promoted effectively and responsively, coordinated and held accountable? • Is the state (Sabah state government) supportive and supervising the marine park? • Is the federal government (Malaysian government) providing strategic direction, redistribution and oversight? • Are international institutions and processes helping to promote the capacity of Sabah Parks to take on the strategic roles to manage the marine park towards sustainability?

	ECOTOURISM ANALYSIS • What is your definition of ecotourism? What are your feelings, expectations, concerns, etc. about ecotourism in the park? • Where will future developments of ecotourism be located? Do you find it rather complementing or conflicting with the management's conservation objective? How is your relationship with the state department responsible for environmental and tourism issues? • Have there been local community outreach/ education activities with regard to the park and ecotourism? What are your feelings on the capacity of, and opportunities for, local residents to benefit? Will legal status (recognized by native customary rights and state laws) limit local people's opportunities to benefit from ecotourism activities? • Do the ecotourism activities affect access to marine resources? How do you manage access to marine resources? Do the ecotourism activities strengthen or undermine community-park co-operation for marine park management? Do they encourage co-management? Do they change the park's relations with outside world, in terms of influence, co-operation or conflict? • Do the ecotourism activities affect any of the external forces – organizations, institutions, policies market, and social norms – that influence park management? Do they change policies of marine park management/ governance? Do they change local people's access to institutions and their influence over them? • How the benefits from ecotourism are financially sustainable?
Tour operators (i.e. diving operators, hotel/resort manager)	• What is your definition of ecotourism? • Are you aware of the Tun Sakaran Marine Park (TSMP)? What do you think its most special features in terms of ecotourism attraction? Why do you think it differs from Sipadan Island (world famous diving spot also located in Semporna)? • Has the park establishment impacted your business in a positive and/or negative way? What are your feelings about the park? • What do you think about ecotourism and the possibility that ecotourism in TSMP may increase in the future? • Is the protection of marine environment important to you? Please explain. • Do you see any benefits or problems if ecotourism was to increase: a) to your business? b) to the community? • Has the park staff involved you in any way (planning, education, information)? Can you estimate the percentage of total revenues that come from the tourists? Can you provide me with details on your staff

	(number, percent local, sex, age, etc.)?
Specialists and expert: MCS UK representative	• What do you think of TSMP? What are your feelings about the park? Why it has to be designated as a park? What are the challenges during the process of establishing TSMP as a protected area? Is the government (local, state and federal) supportive and supervising the process? • What is the local community's response towards the park establishment? What is the plan to improve and sustain local's livelihoods? What is the plan for ecotourism development? Have these plans achieved? • What are your feelings about ecotourism and, the possibility that ecotourism in TSMP may increase in the future? • Is the protection of marine resources important to you? Please explain. • Has the park management involved you in any way (co-managing, planning, decision-making, education, information, etc.)? • What are your strategic roles to improve local people's livelihoods?
Sabah Ministry of Environment and Tourism Official(s)	• Is the state supportive and supervising the management of the marine park? • Is the state providing strategic direction, redistribution and oversight? Is the state's policies, institutions and processes helping to promote the capacity of park management to achieve SL outcomes i.e. community development, marine park conservation, sustainability. What is policy in those areas? Who makes policy in those areas? Is the policy informed by the local situation? • Is the state recognized native customary rights/laws in TSMP? What are they? Are they conflicting or complementing with the state laws? • How are state relationships with local institutions these days? What other institutions and organisations affect the state decision/ policy about the marine park? • What is the state's (eco)tourism plan for TSMP for the next 5-10 years?

Appendix E: Participatory Research Event

Group Discussion

Village:
Community:

1.   Which livelihood activities are your households currently involved in?
        1.   Seaweed farming
        2.   Hunting
        3.   Fishing
        4.   Tourism
        5.   Formal employment (specify):
        6.   Informal employment (specify):
        7.   Government assistance
        8.   Other (specify):

2.   Of the previously mentioned activities, please list and rank the activities in the order of the amount of income that is generated to your household. [Note: enter the code number from above in order of ranking (e.g. 8, 2, 6 etc.)]

3.   Since the establishment of the park, what changes have occurred in your life?
4.   What difference have these recent changes made to people's livelihoods?
5.   Is the legal status i.e. native customary rights and the state laws affected your livelihoods?
6.   Since you entitled for native customary rights or state laws, do you allow involving in the park management?
7.   Do you think by involving in ecotourism activities give you an opportunity to involve in co-management in the park?
8.   What do you think of co-management?
9.   What changes would you like to see if you become a member of a management team?
10.   Are you going to live and stay in the park permanently?
11.   Do you think your community's well-being will be improved in the future?
12.   In your opinion, do you think you can earn a greater income through seaweed farming, or fishing, or ecotourism activities?
13.   List and rank the benefits you hope to attain from the ecotourism activities in the park.

Bibliography

Abakerli, S. (2001). A critique of development and conservation policies in environmentally sensitives region in Brazil. *Geoforum*, 32, 551-565.

Act 98. (2006). Small Estates (Distribution) Act 1955. The Commissioner Of Law Revision, Malaysia, Under The Authority Of The Revision Of Laws Act 1968. Percetakan Nasional Malaysia Bhd.

Agrawal, A., & Gibson, C. C. (1999). Enchantment and disenchantment: The role of community in natural resource conservation, *World Development, 27*(4), 629-649.

Agrawal, A. (2001). Common property institutions and sustainable governance of resources, *World Development, 29*(10), 1649-1672.

Angeles, V. S. M. (2010). Moros in the media and beyond: Representations of Philippine Muslims, *Contemporary Islam*, 4 (1), 29-53.

Appiah-Opoku, S. (2011). Using Protected Areas as a Tool for Biodiversity Conservation and Ecotourism: A Case Study of Kakum National Park in Ghana, *Society & Natural Resources*, 24 (5), 500-510.

Arceo, P., & Granados-Barba, A. (2010). Evaluating sustainability criteria for a marine protected area in Veracruz, Mexico, *Ocean & Coastal Management*, 53(9), 535-543.

Aref, F., Redzuan, M., & Gill, S.S. (2009). Dimensions of community capacity building: A review of its implications in tourism development, *Journal of American Science*, 5 (8), 74-82.

Ashley, C. & Carney, D. (1999). *Sustainable livelihoods: lessons from early experience*. London: DFID.

Astro Awani. (2013). Lahad Datu Invasion Painful Memory. (Astro Awani, Producer) Retrieved June 1st, 2013, from http://english.astroawani.com/malaysia-news/lahad-datu-invasion-painful-memory-2013-27579

Barber, C.V., Miller, K.R., & Boness, M. (eds). (2004). *Securing Protected Areas in the Face of Global Change: Issues and Strategies*. Gland, Switzerland & Cambridge, UK: IUCN.

Baumann, P. (2000). Sustainable livelihoods and political capital: Arguments and evidence from decentralisation and natural resource management in India. *ODI Working Paper, 136*. London: ODI.

Berno, T. (1996). Cross-cultural research methods: Content or context? A Cook Islands example. In R. Butler and T. Hinch (Eds.), *Tourism and indigenous peoples,* 227-254. London: International Thomson Business Press.

Blackshaw, T. (2010). *Key concepts in community studies*. London: Sage Publications Ltd.

Boo, E. (1992).The *ecotourism boom: planning for development and management; wildlands and human needs*. Washington, D.C.: World Wildlife Fund.

Boone, H.N.J., & Boone, D.A. (2012). Analyzing Likert Data, *Journal of Extension*, 50 (2). Article Number 2TOT2.

Borrini-Feyerabend, G., Farvar, M. T., Nguinguiri, J. C., & Ndangang, V. A. (2007). *Co-management of Natural Resource: Organizing, Negotiating and Learning-by-doing*. Heidelberg: Kasparek.

Brown, J., & Mitchell, B. (1997). *National parks and protected areas: Keystones to conservation and sustainable development*. In J. G. Nelson, & R. Serafin (Eds.). Germany: Springer.

Burdge, R.J., Burch, W.R., Gold, R.L., Girard, K., Johnson, S., & Napier, T.L. (1978). Social components of environmental impact statements. In R.K. Jain and B.L. Hutchings (Eds.). *Environmental Impact Assessment: Emerging Issues in Planning*, 117-132. USA: Board of Trustees of University of Illinois.

Butler, R.W. & Boyd S.W. (2000). *Tourism and national parks: Issues and implications*. Sussex: Wiley.

Cahn, M. (2002). Sustainable livelihoods approach: concept and practice. *3rd Biennial Conference of the International Development Studies Network of Aotearoa, New Zealand.*

Camargo, B., Lane, K., & Jamal, T. (2007). Environmental Justice and Sustainable Tourism: The missing cultural link. *The George Wright Forum,* 24(3), 70-80.

Carlsson, L. & Berkes, F. (2005). Co-management: concepts and methodological implications. *Journal of Environmental Management*, 75, 65-76.

Carney, D. (2003). *Sustainable livelihoods approaches: progress and possibilities for change.* London: DFID.

Ceballos-Lascuráin, H. (1993a). *The IUCN Ecotourism Consultancy Programme*. México, DF: IUCN.

Ceballos-Lascurain H. (1996). *Tourism, Ecotourism and Protected Areas*. Gland, Switzerland.: IUCN.

Cernea, M. M., & Schmidt-Soltau, K. (2006). Poverty risks and national parks: Policy issues in conservation and resettlement. *World Development, 34*(10), 1808-1830.

Chambers, R. & Conway, G. (1992). Sustainable rural livelihoods: Practical concepts for the 21st century. *IDS Discussion Paper 296*. Brighton: IDS.

Chou, C. G. H. (2006). Research Trends on Southeast Asian Sea Nomads, *Kyoto Review of Southeast Asia*, 7, 1-11.

Christie, P. & White, A. (2007). Best practices for improved governance of coral reef marine protected areas. *Coral Reefs*, 26, 1047-1056.

Cinner, J.E.& Aswani, S. (2007). Integrating customary management into marine conservation. *Biological Conservation*, 140 (3-4), 201-216.

Cohen, P.J & Steenbergen, D.J. (2015). Social dimensions of local fisheries co-management in the Coral Triangle. *Environmental Conservation*, 42 (3), 278-288.

Convention on Biological Diversity. (1992). *Article 2: Use of terms*. UNEP.

Cousteau, J. (1989) (Director). Borneo: The Ghost of the Sea Turtle (Motion Picture).

Crabbe, M. C., Martinez, E., Garcia, C., Chub, J., Castro, L. & Guy, J. (2010). Is Capacity Building Important in Policy Development for Sustainability? A Case Study Using Action Plans for Sustainable Marine Protected Areas in Belize, *Society & Natural Resources: An International Journal*, 23(2), 181-190.

Daldeniz, B., & Hampton, M.P. (2013). Dive tourism and local communities: Active participation or subject to impacts? Case study from Malaysia. *International Journal of Tourism Research*, 15, 507-520.

242

Dale, A., & Newman, L. (2010). Social capital: A necessary and sufficient condition for sustainable community development?, *Community Development Journal, 45*(1), 5-21.

Davis, E. G. (2004). Maintaining unimpaired ocean resources and experiences: A National Park Service ocean stewardship strategy, *The George Wright Forum* 21(4), 22–41.

Department for International Development (DFID), (1999). *Sustainable livelihoods guidance sheets*. (DFID, Producer) Retrieved February 24th, 2010, from http://www.livehoods.org/info/guidance_sheets_pdfs/section2.pdf.

De Vantier, L., Alcala, A. C., & Wilkinson, C. R. (2004). The Sulu-Sulawesi Sea: Environmental and Socioeconomic Status, Future Prognosis and Ameliorative Policy Options, *Ambio: A Journal of The Human Environment*, 33, 88-97.

Diamantis, D. (2004). *Ecotourism*. London: Thomson Learning.

Diamantis, D. (1999). The concept of ecotourism: Evolution and trends. *Current Issues in Tourism, 2*(2-3), 93-122.

Din, K. H. (1982). Tourism in Malaysia: Competing Needs in a Plural Society, *Annals of Tourism Research*, 9, 453-460.

Doolittle, A. (2003). Colliding Discourses: Western Land Laws and Native Customary Rights in North Borneo, 1881 -1918. J*ournal of Southeast Asian Studies,* 34 (1), 97-126.

Doolittle, A. (2005). *Property and politics in Sabah, Malaysia (North Borneo): a century of native struggles over land rights, 1881–1996*. Nature and Culture Series. Seattle : University of Washington Press.

Dove, M. R. (2006). Indigenous people and environmental politics, *Annual Review of Anthropology, 35*, 191-208.

Eagles, P.F.J. (2003). International trends in park tourism: the emerging role of finance, *The George Wright Forum,* 20(1), 25–57.

Eagles, P. F. J., McCool, S. F., & Haynes, C. D. (2002). *Sustainable tourism in protected areas : Guidelines for planning and management*. Gland, Switzerland: IUCN.

Fabinyi, M. (2010). The intensification of fishing and the rise of tourism: Competing coastal livelihoods in the Calamianes Islands, Philippines, *Human Ecology, 38*(3), 415-427.

Farrington, J., (2001). Sustainable livelihoods, rights, and the new architecture of aid. *Natural Resources Perspective*, 69. London: ODI.

Fuller, D., Caldicott, J., & Wilde, S. (2006). Ecotourism enterprise and sustainable development in remote indigenous communities in Australia, *International Journal of Environment, Workplace and Employment,* 2(4), 373-384.

Fuller, D., Caldicott, J., Cairncross, G., & Wilde, S. (2007). Poverty, indigenous culture and ecotourism in remote Australia, *Development,* 50 (2), 141-148.

Gardner, R., Ostrom, E., & Walker, J. (1990). The nature of common-pool resource problems. *Rationality and Society*, 2(3), 335-358.

Garnett, T.S., Sayer, J., Du Toit, J. (2007). Improving the effectiveness of interventions to balance conservation and development: a conceptual framework. *Ecology and Society*, 12 (1):2.

Ghimire, K. B. & Pimbert, M.P. (1997). Social change and conservation: An overview of issue and concept. In *Social change and conservation : Environmental politics and impact of national park and protected areas*, K.B. Ghimire, & M.P. Pimbert, (Eds). London: Earthscan Publications.

Gold, R.L. (1978). Linking social with other impact changes. In *Environmental Impact Assessment: Emerging Issues in Planning*, R.K. Jain and B.L. Hutchings (Eds.), 105-116. USA: Board of Trustees of University of Illinois.

Worboys G. L., Lockwood, M., & De Lacy, T. (2005). *Protected area management: principle and practice*. Australia: Oxford University Press.

Gray, D., Canessa, R., Rollins, R., Keller, C., & Dearden, P. (2010). Incorporating recreational users into marine protected area planning: A study of recreational boating in British Columbia, Canada*, Environmental Management*, 46(2), 167-180.

Harris, M. (1968). *The rise of anthropological theory: A history of theories of culture.*

New York: T. Y. Crowell.

Haskins, J., & Haskins, J. (1982). *The Filipino Nation: The Philippines: lands and peoples, a cultural geography*. Grolier International.

Hiwasaki, L. (2006). Community-based tourism: A pathway to sustainability for Japan's protected areas. *Society and Natural Resources*, 19(8), 674-692.

Ho, N. & Kassem, K. (2009). *Reef Status of Semporna Priority Conservation Area*. Kota Kinabalu: WWF-Malaysia.

Honey, M. (1999). *Ecotourism and sustainable development: Who owns paradise?* Washington: Island Press.

IUCN. (1994). *Guide to the convention on Biological Diversity*. Gland, Switzerland and Cambridge, UK: IUCN.

Jenkins, J. & Wearing, S. (2003). Ecotourism and protected areas in Australia. In *Ecotourism policy and planning*, Fennel, D.A., & Dowling, R.K. (eds).UK: CABI Publishing.

Jentoft, S., Van Son, T.C. & Bjorkan, M. (2007). Marine Protected Areas: A governance system analysis. *Human ecology*, 35 (5), 611-622.

Johnston, A. M. (2006). *Is the sacred for sale? Tourism and indigenous people*. UK: Earthscan Publications.

Jones, P. J. S., & Burgess, J. (2005). Building partnership capacity for the collaborative management of marine protected areas in the UK: A preliminary analysis, *Journal of Environmental Management*, 77(3), 227-243.

Jones, P.J.S., Qiu, W, & De Santo, E.M. (2013). Governing marine protected areas: social-ecological resilience through institutional diversity. *Marine Policy*, 41 (0), 5-13.

Jubilado, R. C., Hussin, H., & Manueli M., K. (2010). The Sama-Bajau Of Sulu-Sulawesi Seas: Perspectives From Linguistics And Culture, *Jati,* 15, 83-95.

Karki, S.T. (2013). Do protected areas and conservation incentives contribute to sustainable livelihoods? A case study of Bardia National Park, Nepal. *Journal of Environmental Management*, 128, 988-999.

Kassem, K., Hoeksema, B., & Affendi, Y. A. (2012). *Semporna Marine Ecological Expedition*. Kota Kinabalu: WWF-Malaysia, NCB Naturalis, Universiti Malaysia Sabah.

Keeley, J. E. (2001). *Influencing Policy Processes for Sustainable Livelihoods: Strategies for change. Lessons for Change in Policy & Organisations*, No. 2. Brighton: Institute of Development Studies.

Lai, P., & Nepal, S. (2006). Local perspectives of ecotourism development in Tawushan Nature Reserve, Taiwan, *Tourism Management, 27*(6), 1117-1129.

Langton, M., Ma Rhea, Z., & Palmer, L. (2005). Community-oriented protected areas for indigenous peoples and local communities, *Journal of Political Ecology*, 12, 23-50.

Laverack, G., & Thangphet, S. (2009). Building community capacity for locally managed ecotourism in Northern Thailand, *Community Development Journal, 44*(2), 172-185.

Lepper, C. M., & Goebel, J. S. (2010). Community-based natural resource management, poverty alleviation and livelihood diversification: A case study from Northern Botswana, *Development Southern Africa, 27*(5), 725-739.

Lima, I. B., & d'Hauteserre, Anne-Marie. (2011). Community capitals and ecotourism for enhancing Amazonian forest livelihoods, *Anatolia*, 22(2), 184-203.

Long, V. H. (1996). *Communities and tourism impacts*. Doctoral dissertation, Department of Geography, University of Waterloo, Waterloo, Ontario, Canada. 205 pp.

Mahali, S. N. (2010). Perbandingan Dialek Bajau Kota Belud dan Bajau Semporna, SabaHh, *Jurnal Melayu*, (5), 333-374.

Mbaiwa, J. E., & Stronza, A. L. (2010). The effects of tourism development on rural livelihoods in the Okavango Delta, Botswana, *Journal of Sustainable Tourism, 18*(5), 635-656.

McCay, B.J.(2002). *Emergence of Insitutions for the Commons: Context, situation and events*. In The Drama of the Commons. National Academy of Science.

Mcneely, J. A. (1995). *Expanding Partnership in Conservation*. Washington DC: Island Publications.

Milligan, J. A. (2004). Islamization or Secularization? Educational Reform and the Search for Peace in the Southern Philippines, *Current Issues in Comparative Education,* 7 (1), 30-38.

Milligan, J. A. (2005). Faith in School: Educational Policy Responses to Ethno-Religious Conflict in the Southern Philippines, 1935–1985, *Journal of Southeast Asian Studies,* 36, 67-86.

Mitchell, B. (2002). *Resource and environmental management*. England: Pearson Education Limited.

Mokhtar, M., and Ghani Aziz, S. A. (2003). Integrated coastal zone management using the ecosystems approach, some perspectives from Malaysia, *Ocean & Coastal Management* 46 (5), 407-419.

Muñoz-Erickson, T., Aguilar-González, B., Loeser, M., & Sisk, T. (2010). A framework to evaluate ecological and social outcomes of collaborative management: Lessons from implementation with a Northern Arizona collaborative group, *Environmental Management,* 45(1), 132-144.

Naughton-Treves, L., Holland, M. B., & Brandon, K. (2005). The role of protected areas in conserving biodiversity and sustaining local livelihoods, *Annual Review of Environment and Resources,* 30, 219-252.

Navallo, K. (2013). Filipino Migrants in Sabah: Marginalized Citizens in the Midst of Interstate Disputes. (Academia.edu, Publisher) Retrieved December 13th, 2013, from https://www.academia.edu/6364345/Filipino_Migrants_in_Sabah_Marginalized_ Citizens_in_the_Midst_of_Interstate_Disputes

Nepal, S. K. (2002). Involving indigenous peoples in protected area management: Comparative perspectives from Nepal, Thailand, and China, *Environmental Management, 30*(6), 748-763.

Nepal, S. K. (2000). Tourism, national parks and local communities. In *Tourism and National Parks - Issues and Implications*. R.W. Butler and S. W. Boyd. (eds). Chichester: John Wiley & Sons.

Nimmo, H. A., (1968). Reflections on Bajau History, *Philippine Studies* 16(1), 32-59.

NST. (2014). *RCI: Filipinos with IC would bring family members to Sabah*. (New Straits Times, Producer) Retrieved December 3rd, 2014, from http://www.nst.com.my/node/58877

Omar, A. (1983). *The Malay people of Malaysia and their languages*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

Ostrom, E., Burger J., Field, B. C., Norgaard, B. R., & Policansky, D. (1999). Revisiting the Commons: Local Lessons, Global Challenges, *Science*, 284, 278-282.

Ostrom, E. (2003). How types of goods and property rights jointly affect collective action, *Journal of Theoretical Politics*, 15(3), 239-270.

Ostrom, E. (2005). *Understanding institutional diversity*. Princeton, New Jersey, USA: Princeton University Press.

Palys, T. S. & Atchison, C. (2008). *Research Decisions: Quantitative and Qualitative Perspectives*. Toronto: Thomson Nelson.

Pasteur, K (2001). *Changing Organisations for Sustainable Livelihoods: a map to guide change. Lessons for Change in Policy & Organisations*, No. 1. Brighton: Institute of Development Studies.

Patton, M. Q. (2002). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage.

Pawar, M. S. (2010). *Community development in Asia and the Pacific*. New York: Routledge.

Pinkerton, E.W. (1992). Translating legal rights into management practice: overcoming barriers to the exercise of co-management, *Human Organization,* 51 (4), 330–341.

Phillips, A. (2003). Turning ideas on their head: The new paradigm for protected areas, *The George Wright Forum,* 20(2), 8-32.

PMR. (2013). *Etnik Sabah Dalam Kepelbagaian Kebudayaan.* (Malaysian Dept. of Information, Producer) Retrieved August 26th, 2013, from http://pmr.penerangan.gov.my/index.php/budaya/7481-etnik-sabah-dalam-kepelbagaian-kebudayaan.html

Pomeroy, R. S., & Rivera-Guieb, R. (2006). *Fishery Co-management: A Practical Handbook.* Wallingford, UK: CABI Publishing.

RCI. (2014). *Report of the Commission of Inquiry on Immigrants in Sabah.* Royal Commission of Inquiry. Sabah: Malaysian Government.

Read, A. D., & West, R. J. (2010). Qualitative risk assessment of multiple-use marine park effectiveness – A case study from NSW, Australia, *Ocean & Coastal Management*, 53 (10), 636-644.

Rennie, J. K. & Singh, N. C. (1995). *Participatory research for sustainable livelihoods: A guidebook for field projects*. International Institute for Sustainable Development.

Rosendo, S., Brown, K., Joubert, A., Jiddawi, N., & Mechisso, M. (2011). A clash of values and approaches: A case study of marine protected area planning in Mozambique*, Ocean and Coastal Management*, 54(1), 55-65.

Ross, S., & Wall, G. (1999). Ecotourism: Towards congruence between theory and practice, *Tourism Management,* 20 (1), 123-132.

Rydin,Y. & Pennington, M. (2000). Public participation and local environmental planning: the collective action problem and the potential of social capital, *Local Environment* 5 (2), 153–169.

Saat, G. (2003). The Identity and Social Mobility of Sama-Bajau, *Sari*, 21, 3-11.

Sadiq, K. (2005). When States Prefer Non-Citizens Over Citizens: Conflict Over Illegal Immigration into Malaysia, *International Studies Quarterly*, 49 (1), 101–122.

Salm, R.V., Clark, J.R. (1984). *Marine and Coastal Protected Areas: A Guide for Planners and Managers*. Gland, Switzerland: IUCN.

Samdin, Z. (2008). Willingness to Pay in Taman Negara: A Contingent Valuation Method, *International Journal of Economics and Management*, 2(1), 81 – 94.

Sather, C. (1997). *The Bajau Laut: Adaptation, History, and Fate in a Maritime Fishing Society of South-Eastern Sabah*. Kuala Lumpur: Oxford University Press.

Scherl L. M. et al. (2004). *Can Protected Areas Contribute to Poverty Reduction? Opportunities and Limitations*. Gland, Switzerland and Cambridge, UK: IUCN.

Scoones, I. (1998). *Sustainable rural livelihoods: A framework for analysis.* University of Sussex, UK: Institute of Development Studies.

Scoones, I. (2009). Livelihoods perspectives and rural development. *Journal of Peasant Studies*, 36(1), 1-26.

Scuba Travel. (2013). *Diving Malaysia*. (Scuba travel, Producer) Retrieved 24th March, 2013 from http://www.scubatravel.co.uk/malaysia/

Semporna District Office. (2012). *Diving sites*. (Semporna District Office, Producer) Retrieved September 16th 2012 from http://ww2.sabah.gov.my/pd.sprn/sipadan.html

Simpson, M. C. (2007). An integrated approach to assess the impacts of tourism on community development and sustainable livelihoods, *Community Development Journal, 44*(2), 186-208.

SIP Management Plan. (2001). *Semporna Islands Project (SIP) Management Plan*. Sabah: European Community.

SIDP. (2005). Community action for sustainable use and conservation of coral reefs. *SIDP News (1)*. Sabah: UK Department for Environment, Food and Rural Affairs.

Snider, R. T. (2012). Land Tenure, Ecotourism, and Sustainable Livelihoods: "Living on the edge' of the Greater Maasai Mara, Kenya. University of Waterloo, Department of Geography. Waterloo: University of Waterloo.

Spadi, F. (2003). Pulau Ligitan and Pulau Sipadan: New Parameters for the Concept of Dependency in the Maritime Environment? The ICJ Judgment of 17 December 2002, *The International Journal of Marine and Coastal Law*, 18, 295-310.

Staiff, R., & Bushell R. (2004). Tourism and Protected Areas: Benefits Beyond Boundaries, *Annals of Tourism Research*, 31 (3), 723–726.

Statistik Sabah. (2010). *Population of housing census of Malaysia*. Kuala Lumpur, Malaysia.

Stronza A. (2001). Anthropology of tourism: forging new ground for ecotourism and other alternatives, *Annual Review of Anthropology*, 30, 261–283.

Stronza, A., & Gordillo, J. (2008). Community views of ecotourism, *Annals of Tourism Research, 35*(2), 448-468.

Stynes, D.J. (1997). *Economic impacts of tourism*. Illinois, USA: Department of Commerce and Community Affairs.

Su, D., Wall, G., & Eagles, P. F. (2007). Emerging governance approaches for tourism in the protected areas of China, *Environmental Management, 39*(6), 749-759.

Sutherland, H. (2004). The Sulu Zone Revisited (Review), *Journal of Southeast Asian Studies*, 35 (1), 133-157.

Tao, T. C. H., & Wall, G. (2008). Tourism as a sustainable livelihood strategy, *Tourism Management,* 30(1), 90-98.

Tao, T. C. H., & Wall, G. (2009). A livelihood approach to sustainability, *Asia Pacific Journal of Tourism Research, 14*(2),137-152.

Tao, T. C. H., Wall, G., Wismer, S. (2010). Culture and sustainable livelihoods, *Journal of Human Ecology, 29*(1), 1-21.

Techera, E.J. & Troniak, S. (2009). *Marine Protected Areas Policy and Legislation Gap Analysis: Fiji Islands*, IUCN Regional Office for Oceania, Suva, Fiji.

The Borneo Post. (2010). *Dirtiest Semporna town needs transformation*. (The Borneo Post, Producer) Retrieved 11th February, 2013 from http://www.theborneopost.com/2010/11/26/dirtiest-semporna-town-needs-transformation/

The Malaysian Times (2012). *Illegal immigrants causing simmering resentment in Sabah*. (The Malaysian Times, Producer) Retrieved 31st January 2014 from http://www.themalaysiantimes.com.my/illegal-immigrants-causing-simmering-resentment-in-sabah/

Tourism Malaysia (2013). *2013 Annual Report*. Malaysia Government report.

Tsaur, S., Lin, Y., & Lin, J. (2006). Evaluating ecotourism sustainability from the integrated perspective of resource, community and tourism, *Tourism Management, 27*(4), 640-653.

Tucker, C. M. (1999). Common property design principles and development in a Honduran comunity, *Fletcher Journal of Development Studies ,XIV,* 1- 23.

UNEP. (2006*). Marine and coastal ecosystem and human wellbeing: A sysnthesis report based on the findings of the Millennium Ecosystem Assessment*. UNEP.

Vajirakachorn, T. & Nepal, S. K. (2014). Local perspectives of community-based tourism: case study from Thailand's Amphawa Floating Market, *International Journal of Tourism Anthropology*, 3 (4), 342 – 356.

Wall, G. (1997). Is ecotourism sustainable?, *Environmental Management,* 21(4), 483-491.

Walker, J. L. (1998). *Social impacts during project anticipation in Molas, Indonesia, and the role of social impact assessment.* Unpub. M.E.S. thesis, Department of Geography, University of Waterloo, Waterloo, Ontario, Canada. 149 pp.

Walker, J., Mitchell, B., and Wismer, S. (2001). Livelihood strategy approach to community- based planning and assessment: a case study of Molas, Indonesia, *Impact Assessment and Project Appraisal,* 19(4), 297-309.

Warren, Carol. (1983). Ideology, Identity and Change: the Experience of the Bajau Laut of East Malaysia, 1960-1975. *Southeast Asian Monograph Series No. 14*. Townsville, (Qld): James Cook University of North Queensland.

Warren, J. F. (2003). A Tale of Two Centuries: The Globalization of Maritime Raiding and Piracy at the end of Eighteenth and Twentieth Centuries, *Asia Research Institute Working Paper No. 2*, National University of Singapore.

Warren, J. F. (2007). The Port of Jolo and the Sulu Zone Slave Trade: An 1845 Report, *Journal of Sophia Asian Studies*, 25, 303-322.

Weaver, D. (2008). *Ecotourism* (2nd ed). Australia: John Wiley & Sons.

Weick, K.E. (1968). Systematic observational methods. In G. Liadzey and E. Aronson (Eds.).*The handbook of social psychology* (2nd ed.), 357-451. Reading, Mass: Addison – Wesley.

Weinberg, A., Bellows S., and Ekster D. (2002). Sustaining Ecotourism: Insights and Implications from two Successful Case Studies, *Society and Natural Resources*, 15, 371–380.

Wescott, G. (2002). Partnerships for capacity building: Community, governments and universities working together, *Ocean and Coastal Management*, 45(9-10), 549-571.

West, P., Igoe, J., & Brockington, D. (2006). Parks and peoples: The social impact of protected areas, *Annual Review of Anthropology, 35*, 251-277.

Wilkie, D. S., Morelli, G. A., Demmer, J., Starkey, M., Telfer, P., & Steil, M. (2006). Parks and People: Assessing the Human Welfare Effects of Establishing Protected Areas for Biodiversity Conservation, *Conservation Biology*, 20 **(**1), 247-249.

Worboys, G.L., Lockwood M., & De Lacy T. (2005). *Protected area management: Principle and practice*. Australia: Oxford University Press.

Wright, L. R. (1966). Historical Notes on the North Borneo Dispute, *Journal of Asian Studies*, 25(3), 471-484.

WWF International (2008*). Indigenous Peoples and Conservation: WWF Statement of Principles*. Gland, Switzerland: WWF International.

WWF Malaysia (2013). *Coral Triangle*. (WWF, Producer) Retrieved May 1st, 2013 from http://wwf.panda.org/what_we_do/where_we_work/coraltriangle/

Yagi, N., Takagi, A. P., Takada, Y. & Kurokura, H. (2010). Marine protected areas in Japan: Institutional Background and Management Framework. *Marine Policy*, 34, 1300-1306.

Zeppel, H. (2006). *Indigenous ecotourism: Sustainable development and management*. UK: CABI International.

Ziffer, K.A. (1989). *Ecotourism: the uneasy alliance*. Washington: Conservation International; Ernst and Young.