

**Marine tourism as a supplemental livelihood: An exploration of remote fisheries-based  
communities in the Philippines**

by

Brooke Amanda Porter

## Abstract

Remote artisanal fishing communities in the developing world remain highly dependent on declining marine resources. Despite this, many internationally funded fisheries development projects seek to increase catch rates and commercialise artisanal fisheries as part of livelihood development projects. Such an approach tends to increase pressure on local fisheries and contribute to further declines in fish stocks. In order to mitigate this negative outcome, the integration of a supplemental livelihood such as marine tourism has been suggested. This approach is based on the assumption that participation in the tourism sector has the potential to benefit both the resource and those dependent on the resource. This research investigated the perspectives and knowledge of members of three remote fishing communities in two areas of the northern region of Luzon, Philippines. This exploratory qualitative project utilised phenomenological inquiry as the main research instrument. Perception-based data that focused on livelihood satisfaction, perceptions of the current state of marine resources, tourism awareness and willingness to engage in tourism as a livelihood diversification were collected from 42 fisherfolk via face to face interviews. Additional information was gathered from five key informants that represented key stakeholders, including local and foreign tour operators, NGOs, international aid agencies and fisheries management at the government level. More specifically, key informants were asked to identify costs and benefits of tourism as a livelihood diversification strategy as well as provide examples of its application.

This research revealed that the fisherfolk participants were generally satisfied with their current livelihoods and, therefore, did not express a desire to shift livelihoods. This sentiment appears to be a result of currently being able to 'make ends meet', albeit through resource overexploitation and the use of illegal fishing methods. Further, key findings, primarily the gross under awareness of tourism within remote artisanal fishing communities, suggested that the current approach to tourism development requires modification. However, the high social value associated with the idea of receiving visitors by fisherfolk enforced the viability of tourism as a diversification strategy. Most importantly, the data from two key informants documented two potentially successful surf-riding tourism development projects from the private sector that have worked to engage fisherfolk in the tourism sector. Elements from these models were combined to suggest a *contributory tourism development model* based on social entrepreneurship and resource conservation

components. This new model proposes the privatisation of livelihood diversification through small-scale tourism development in the context of the fisheries. In light of the suggested privatisation, it is further recommended that direct conservation and enforcement of the resource be prioritised with the resulting unobligated funds from international aid efforts. The application of the suggested model aims to significantly reduce the current development project timelines and budgets, provide growth in the private sector through social entrepreneurship, provide accessible diversification opportunities for fisherfolk and provide a conservation strategy for the natural resources, and thus, provide long-term protection for the dependent communities.

**Key words**

Fishing communities, livelihood improvement, development strategy, surf-riding tourism, Philippines

### **Attestation of Authorship**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning.



.....

Brooke Amanda Porter

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## **Acronyms**

AUTEC	Auckland University of Technology Ethics Committee
BFAR	Bureau of Fisheries and Aquatic Resources
CBCRM	Community-based coastal resource management
CBT	Community-based tourism
CPRs	Common pool resources
CRM	Coastal resource management
DSS	Development support system
EEZs	Exclusive Economic Zones
FADs	Fish aggregating devices (FADs)
FARMC	Fisheries and Aquatic Resources Management Councils
GDP	Gross domestic product
IBAMA	Federal Institute for the Environment
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least developed countries
LGSP	Philippines-Canada Local Government Support Programme
LIPI	Lembaga Ilmu Pengetahuan Indonesia
LRFT	Live reef fish food trade
MPAs	Marine protected areas

MSY	Maximum sustainable yield
NCIP	National Commission on Indigenous Peoples
NGOs	Non-governmental organisations
NIPAS	National Integrated Protected Areas Systems
OFWs	Overseas Filipino Workers
PAR	Participatory action research
RFLP	Regional Fisheries Livelihoods Programme
SLA	Sustainable livelihoods approach
STIs	Sexually transmitted infections
SIDSTs	Small island developing states and territories
SUPs	Stand-up paddleboards
UN	United Nations
UNFAO	United Nations Food and Agricultural Organisation
UNIFAD	United Nations International Fund for Agricultural Development
UNWTO	United Nations World Tourism Organisation

## Glossary

*Alamang* – very small shrimp or krill. These are commonly used to make a fermented shrimp paste.

*Amihan* - the annual northeast monsoon in the Philippines. *Amihan* occurs between the cooler months of November to early May.

*Bantay dagat* – volunteer sea warden. Training is offered by the government of the Philippines.

*Barangay* - Filipino term used to describe the smallest political unit. *Barangays* vary in size from 100 to around 2000 persons (Oracion et al., 2005, p. 396). The *barangay* is headed by a *barangay* captain who in turn is supported by a *barangay* council.

*Elvers* - juvenile eels.

Fish aggregating device – a manmade object used to attract pelagic fish.

*Habagat* - the annual southwest monsoon in the Philippines. *Habagat* runs from May to October.

*Kaingin* - Filipino term for slash and burn farming.

*Lapu-lapu* - Filipino term for grouper fishes.

Marine protected area – an area designated to promote marine conservation. Marine protected areas may vary from limited-use to no-use areas.

Maximum sustainable yield – theoretically the largest catch that can be taken sustainably from a fishery.

*Merienda* – a late afternoon snack time/break commonly practiced in the Philippines. There is also social and cultural aspect to *merienda*.

*Payao* – type of fish aggregating device used in the Philippines.

*Sari-sari* – Tagalog term for mix. The term commonly refers to a type of store that sells a variety of goods. It also is used by fisherfolk to describe the catch of various fish species.



Sidelines – any business or livelihood activities used to supplement the main livelihood. Sidelines may change depending on personal needs, market demands and available options. Sidelines may part-time or opportunistic.

*Sitios* – the subdivision of the *barangay*. *Sitios* are similar to neighbourhoods.

*Tabios* – a small fish 5-6mm in length belonging to the family gobiidae. *Tabios* are edible and commercially fished.

*Tuba* – fermented palm wine. Sometimes referred to as *Lambanog*.

Videoke – karaoke.

## **Chapter 1: Introduction and outline of the thesis**

Tourism is a principal export for developing countries and least developed countries (LDCs): it is growing rapidly and is the most significant source of foreign exchange after petroleum. The 49 Least Developed Countries have recognised the importance of tourism to their development and are pressing for it to be accorded a higher priority. (World Tourism Organisation, 2002, p. 9)

### **1.1 Introduction**

This thesis provides new evidence relevant to the debates regarding livelihood improvement opportunities for impoverished artisanal fishing communities in remote regions of developing nations. The research presented explores the viability of marine tourism as an alternative or supplemental livelihood for remote fishing communities in the Luzon area of the Republic of the Philippines. Results provide insights into the perceptions and understanding of fisherfolk regarding tourism as a potential alternative or supplemental livelihood. In addition, the research explores the desire of local fisherfolk to shift from an artisanal fishing-based community to an alternate state (namely including tourism as an additional activity). Such an approach is important because it addresses a significant gap in the literature concerning the approaches to development strategies designed to address remote impoverished fishing based communities. While often targeted by development programmes, little attention has been given to the perceptions and realities of remote fishing communities in regards to their desire to be developed, more specifically through the introduction of tourism projects. To date, research and development approaches have focused on exploring alternative fisheries techniques and approaches or, in a limited number of cases, the willingness of fishers to exit the fishery. Despite numerous proposals and suggestions for pro-poor tourism or tourism as a development strategy (e.g., Armada, White, & Christie, 2009; Bauer, 2005; Croes & Vanegas, 2008; Laws, 2009; Mensah & Amuquandoh, 2010; Mograbi & Rogerson, 2007), there are no published studies which have reported on research examining remote artisanal fishing communities' understanding of or interest in pursuing such an approach. As a consequence, the

research reported in this thesis focuses on assessing the potential for using marine tourism as a development strategy for remote artisanal fishing communities. The findings from this research contribute to the general discourse on development strategy. The context of development, however, is fickle. As Esteva (1992) argues, “the word indicates that one is doing well because one is advancing in the sense of a necessary, ineluctable, universal law and toward a desirable goal” (p. 10). While good-will and improvement are seemingly inherent components of development, Esteva (1992), notes that for two-thirds of the world’s population, the term development “is a reminder of what they are not. It is a reminder of an undesirable, undignified condition. To escape from it, they need to be enslaved to others’ experiences and dreams” (p. 10). The term “development,” since its political application by U.S.A. President Truman in the late 1940s, carries decades of baggage and its associated theory and definition continue to be the target of constant critique by post-development theorists (Ziai, 2007). In line with the original credos of post-development theorists (e.g., Sachs, 1992) the research presented in this thesis realises the need for change to the current approach to development in the context of remote artisanal fishing communities. While this research explores the need for development, however loaded its definition, it does so from the vantage point of participants who are highly dependent on diminishing marine resources. It furthers development discourse by uniquely addressing post-development theorists’ concerns of Westernisation by exploring the viability of a potential development initiative through the perspectives of those affected.

It is apparent that with the continued degradation of coastal fisheries, the communities reliant on them will be forced to change. Necessity will alter traditional ways of living. The heightened uses of illegal and destructive fishing methods such as fine mesh set-nets, dynamite and cyanide, are already indicators of such adaptation (Baticados, 2004). While this utilisation of destructive fishing methods provides a short-term solution for fisherfolk (maintaining fishing catch), it exacerbates the decline and degradation of the marine environment (Baticados, 2004; Dalabajan, 2009).

This research seeks to go beyond the standard critiques of development theory by suggesting amendments to the current strategy through the exploration of tourism as an alternative or

supplemental livelihood. When considering tourism as a supplemental or alternative livelihood, the success is dependent not only on the feasibility of integration (e.g., the knowledge required and the ability to provide reasonable services demanded by tourism), but also on the given communities desire to engage in the industry. In the case of remote artisanal fishing communities in developing nations, the lack of formal training and exposure to outsiders create significant hurdles for a livelihood shift towards tourism. The desire to engage in tourism alone cannot be considered sufficient for a livelihood shift. The findings from this research provide suggestions for the improvement of livelihood development programmes to ultimately improve long-term social, environmental and economic outcomes for artisanal fishing communities dependent on marine resources.

## **1.2 Coastal communities in developing countries**

There are vast economic and social differences in communities throughout the world. Economies as well as standards of living are proving non-transferable as many livelihood improvement programmes based largely on Western standards continue to flounder (Easterly, 2006). Growth in developing countries remains largely a result of informal economies where up to 60 percent of workers find jobs (Bacchetta, Ernst, & Bustamante, 2009). The majority of artisanal fisheries go undocumented both scientifically and economically (Mensah & Antwi, 2002) and are therefore considered to be economically informal. Bacchetta et al. (2009) noted the vulnerabilities associated with employment in an informal economy, particularly the lack of potential career growth. For members of coastal communities, this inherent risk of involvement in fishing as an informal economy is further intensified, as the fishers are dependent on an unstable resource.

### *1.2.1 Reliance on marine resources*

Traditional associations with the sea are noted throughout historical record (Allison et al., 2005; Costanza, 1999). Marine resources, primarily fisheries, have long been a livelihood for coastal inhabitants (Allison et al., 2005). In areas where alternative income opportunities are limited, fishers become critically dependent on coastal marine resources not only for sustenance, but

also for income (Kronen, Vunisea, Magron, & McArdle, 2010). This scenario is typical of developing countries where coastal communities are dependent on coastal fish stocks as a staple food source (Baticados, 2004; Sievanen, Crawford, Pollnac, & Lowe, 2005). This dependence coupled with a lack of alternative livelihoods make fishing an obligation, rather than a chosen occupation. The heavy reliance on fisheries creates considerable environmental risks for the resource and those dependent upon it (Kronen et al., 2010; Turner et al., 2007).

Reliance upon the marine resources is not limited to the local level. The demand for fish and other seafoods are what drive fisheries development projects. Private businesses as well as internationally funded fisheries development projects seek to expand the fishery through industrialisation and increase the export of consumable seafoods and marine products to international markets (Campredon & Cuq, 2001; Vincent, Meeuwig, Pajaro, & Perante, 2007).

### **1.3 The decline of global fisheries**

As the global population rises, so does the demand for fish as a source of food. The associated increase in pressure on marine resources and fisheries has and will continue to require economic and environmental intervention. With many near-shore fisheries already in decline (Hilborn et al., 2003; Stobutzki et al., 2006; UNFAO, 2010; Watson et al., 2002) coastal inhabitants who depend on the ocean as a source of sustenance and income, face significant risks.

The decline in catch has not gone unnoticed by fishers. M. Bunce, Rodwell, Mee and Gibb (2008) reported grave observations from members of a remote artisanal fishing community in Rodrigues, Mauritius with an elder artisanal fisher stating; “I have six sons and four of them are fishers. But they are wasting their time as the fish have gone away” (p. 295). In other areas changes in actions indicate collapsing fisheries. Fisherfolk in the Philippines have replaced traditional methods with more effective yet destructive and illegal fishing methods (e.g., cyanide, dynamite, fine mesh set nets) to supplement the declining catch (Baticados, 2004). Elsewhere market demand is increasing the pressure on fisheries. Cinner and McClanahan (2006) found the proximity of fish markets in Papua New Guinea to be directly correlated with

overfishing of higher value species and higher trophic level species. Cinner and McClanahan (2006) go on to speculate that overfishing in coastal areas will continue to increase with the improvement of infrastructure (e.g., additional markets, availability of ice).

The collapse of coastal fisheries is a widespread issue that will not only continue to be impacted by overfishing, but also by climate change (Allison et al., 2009; McLeod et al., 2010; Sobhee, 2006). Allison et al. (2009) summarised the dependence on and the potential fate of fisheries-dependent developing nations:

Most of the countries that are most vulnerable to climate change impacts on their fisheries are also the poorest: they contribute only 2.3% of global gross domestic product (GDP) and 22 of the 33 countries in the most vulnerable quartile are classified as Least Developed Countries (LDCs). The inhabitants of vulnerable countries are twice as dependent upon fish for food as those of other nations, with 27% of dietary protein derived from fish compared with 13% elsewhere. Yet considerable proportion of fish captured by the most vulnerable nations is exported. The most vulnerable countries produce 20% of global fishery exports (by weight) totalling 6.2 billion (thousand million) US dollars or 13% of the total global value of exports. In the absence of enhanced capacity to cope with and adapt to the impacts of climate change, the disruption of fisheries by climate change is likely to affect large numbers of poor people, and reduce the options for future economic growth in those countries for which fisheries are important sources of food, employment and export revenues. (p. 19)

Though the effects of climate change on coastal fisheries are outside of the scope of this research, climate change directly affects catch rates and fisheries related livelihoods (Allison et al., 2009). Climate change will likely be a driver in socioeconomic shifts in remote artisanal fishing communities that, like overfishing, will continue to create a need for alternative or supplemental livelihoods. The changing climate will continue to impact coastal fisheries and the resiliency of those dependent upon them and also affect the development and management strategy for fisheries.

## **1.4 Marine resource management in developing countries**

Managing fisheries is difficult. Artisanal and small-scale fisheries are no exception. They prove challenging to manage as they often consist of a multi-species fishery and catches are landed in multiple shore-based sites (Bene, 2003; Grafton, Kirkley, Kompas, & Squires, 2006). Further, managing a resource that is used primarily for sustenance, creates additional challenges. Fish are mobile by nature and as Moorcraft (1972) wrote, "... the advent of fishing limits has only meant that during their lifetime they [fish] are chased by fishermen of different nationalities" (p. 57). Despite numerous scientific, military, governmental and community efforts to manage world fisheries, fish are unable to be bound to borders or a given nation's Exclusive Economic Zones (EEZs) (Grafton et al., 2006).

### *1.4.1 Illegal fishing*

The majority of coastal developing countries have strong fisheries laws, yet struggle with enforcement and corruption. The Philippines is a prime example. In the Calamianes, an area where frequent incidents of illegal fishing are known to occur, research estimates that there is only a three percent chance of detection of illegal fishing activities and the likelihood of a conviction is less than two thousandths of a percent (Dalabajan, 2009). Dalabajan (2009) also noted the loopholes in and inefficacy of laws concerning the coastal fisheries, especially more lucrative fisheries like the live fish food trade, making punishment for many cases of illegal fishing nearly impossible. Such examples are recent fishing bans that limit the live fish trade; these have yet to be implemented and have been awaiting administrative orders for years from the Philippines' Bureau of Fisheries and Aquatic Resources (BFAR). Other bans that have previously gone into effect have been lifted due to political pressure (Dalabajan, 2009). Political corruption in the Philippines is widespread as is corruption within the enforcement authorities (Fabinyi, 2007). Dalabajan (2009) described multiple arrests where all of the equipment including illegal fishing gear was confiscated, yet the suspect was able to flee. Issues surrounding illegal fishing are not limited to the Philippines. The problem of managing illegal fishing is widespread in developing nations where corruption and bribery within the fisheries are commonplace (e.g., M. Bunce, Rodwell, Mee & Gibb, 2009; Fabinyi, 2007; Fabinyi &

Dalabajan, 2010; Hollup, 2000; Dalabajan, 2009). Whereas illegal fishing methods result in a higher immediate economic return or as Fabinyi (2007) describes it, a “jackpot,” he also suggests that culture, more specifically masculinity, plays a significant role in the practice of illegal fishing. Fabinyi (2007) suggests, “the practice of illegal fishing also offers the potential of moving into a new, empowered space. The promise of high rewards in illegal fishing complements perfectly the desire for material status possessed by young men, and at the same time enhances the fishers’ reputation for strength and bravery within the peer group” (p. 525). From the perspective of a fisher, the social and economic gains associated with the practices of illegal fishing (Fabinyi, 2007) outweigh the minimal chances of being caught (Dalabajan, 2009). Illegal fishing may instead be viewed as an enticing gamble (Fabinyi, 2007) and also a means of shifting livelihoods (Fabinyi, Knudsen, & Segi, 2010).

#### *1.4.2 Marine protected areas*

Marine protected areas (MPAs) are a common management response to promote recovery in near-shore fisheries. The concept behind MPAs is a marine reserve of variable size and with variable restrictions. An MPA may be limited-take or no-take or only allow certain types of fishing gear (e.g., hook and line) and therefore may impact fisherfolk using various gears in different ways (Fabinyi et al., 2010). Further an MPA may have restrictions concerning its recreational use. Some MPAs allow for tourism activities (e.g., SCUBA diving or snorkelling) while others are strict no-use areas. The biological benefits of MPAs are well agreed upon in the literature (e.g., Christie, 2004; Lester et al., 2009; Lundquist & Granek, 2005), yet noncompliance remains an issue (Christie, 2004; Kritzer, 2004). Kritzer (2004) notes the importance of surveillance and enforcement in the success of MPAs and the accrual of MPA benefits, though goes on to state that these components are often lacking. Christie (2004) argues that the social implications of MPAs are scanty addressed noting “the complexities of establishing ambitious conservation areas in impoverished and socially stratified contexts” (p. 161-162). Another challenge associated with MPAs in developing nations is that fisheries data are often missing (Lundquist & Granek, 2005). While the absence of baseline data will not affect the biological success of an MPA, it will affect the ability to measure change. Such data may be



an important tool when negotiating social matters among stakeholders, especially in the case of marginalised fisherfolk (Oracion, Miller, & Christie, 2005) being asked to forfeit access to fishing grounds. While the use of MPAs in developing nations remains an important management strategy for marine conservation, a generic MPA model is seldom the best approach given the unique challenges of specific marine ecosystems (Christie, 2004; Lundquist & Granek, 2005).

### **1.5 Development strategy for remote fishing communities**

Industrialisation has changed the economies of the world with fisheries being no exception. Kent (1986) warned about the errors of industrialising fisheries, noting that “when people fish for food there is such a thing as sufficiency. In the commercial orientation, however, when people fish for profit, there is no such thing as enough” (p. 183). Pendse (1984) reported that community values are forfeited for a corporation’s advancement. In the early 1980s economists such as Kent (1986) and Pendse (1984) foretold the present situation of global fisheries. Post-development advocate Escobar (1992) noted that planned development is not the answer and instead argued in favour of a more organic development progression with roots embedded in traditional knowledge. Sachs (1992) stated that “development is much more than just a socio-economic endeavour; it is a perception which models reality, a myth which comforts societies, and a fantasy which unleashes passions” (p. 1). Both Sachs (1992) and Escobar (1992) noted the shortcomings of development; however two decades later, development through the industrialisation of small artisanal fisheries continue to take precedence over preserving and enhancing traditional ways (Huntington, 2000).

Coastal communities in developing nations, more specifically artisanal fisherfolk, are common targets or recipients of fisheries development projects and other international aid programmes. Fisheries development projects often assume functioning efficacy of existing fisheries legislation. Many fisheries development projects seek to industrialise fisheries (e.g., United Nations International Fund for Agriculture and Development (UNIFAD) programmes, United Nations Food and Agricultural Organisation (UNFAO) programmes), whilst other internationally funded aid programmes (e.g., Regional Fisheries Livelihood Programme for South and Southeast Asia) work to provide alternative or supplemental livelihoods to communities.

### *1.5.1 Tourism as an intervention*

Studies and reports have discussed tourism as a potential response to declining resources and/or weak economies (e.g., Bunce et al., 2008; Cater, 1993; Croes & Vanegas, 2008; Laws, 2009; UNWTO, 2004). Tourism is a rapidly evolving industry and has grown to become a large and powerful economic sector worldwide (UNWTO, 2004). There is a significant overlap in equipment used by fishers and marine tour operators (Cheong, 2005; Mensah & Antwi, 2002), and from an economic standpoint the introduction of tourism as a supplemental activity to fishing could serve to maximise capital investments. The resources common to fishers and fishing households (e.g., boats, knowledge of the marine environment, lifestyle) work to enhance potential tourism products (e.g., marine tours, village tours). Access to a tourism economy by fishing households has the capability to provide a valuable supplemental economic activity and contribute to improved livelihoods.

Additionally, the integration of marine tourism into fishing communities has the potential to serve as a resource management strategy (Diedrich, 2007), adding a secondary value to the marine resources and providing an alternate non-extractive use of fisheries. Kaikoura, New Zealand is an example of such a shift, albeit in a developed nation. For Kaikoura, whalewatching in the late 1980s was the spark for significant tourism growth for the community (Orams, 2002). Though there are few references in the literature detailing the transition from fishing to tourism in Kaikoura, the local marine tour industry now employs many ex-fishers as boat captains (personal observation, Dec 10-21, 2011). Such a shift is an example of Cheong's (2005) description of industry overlap, where the skills necessary for fishing (e.g., captaining) are of benefit within the tourism industry.

Similar shifts from fishing to tourism have been observed in developing countries. In areas of the Philippines, community-based, coastal development initiatives have shown successful results (Baticados & Agbayani, 2000; Katong, Pomeroy, Garces, & Ring, 2000). Similarly, fishing communities in Korea entering the tourism sector have experienced small-scale growth (Cheong, 2003). These represent the relatively few examples in the literature denoting

transitions of fisherfolk into tourism in developing countries; however, many anecdotal examples of tourism shifts from fishing communities in developing nations exist. In the Mentawais, a common surf-tourism destination in Indonesia, some of the tour vessels that carry surfers are converted fishing vessels (Ponting, 2001). Fisherfolk in Lombok, Indonesia, offer ad hoc charters to the Gili Islands (personal observation, April 8, 2003). The gap in the literature may simply be a result of research interests responding to conflicts created by a shift to tourism or the difficulty of documenting a gradual absorption of fisherfolk into tourism. The integration of tourism into fishing communities remains plausible. In the developing world, fishers are often financed by middlemen, organised into fishing cooperatives or have access to microfinance programmes. As Acheson (1981) noted:

It is very difficult for fishermen to market their own catches successfully. Not only must fishermen be physically absent a good deal of the time, but they operate on schedules which are simply not compatible with the opening and closing of markets on shore. (p. 282)

These existing socio-economic arrangements are important when considering tourism integration as important stakeholder communications are already in place (Aref & Gill, 2009). Further, the interactions on other economic activities (e.g., agriculture, destructive logging, fisheries, foresting, water supply) inextricably linked to marine tourism must also be considered (Cater & Cater, 2007).

#### *1.5.2 Contradictions to tourism integration*

In developing nations, many fishing communities fail to access tourism economies, even where tourism is a growing sector. Cheong (2003) noted that fishing communities with beach access were significantly more successful than those without such recreational activities thus, making location somewhat of an inflexible factor. Though tourism or pro-poor tourism are recurring suggestions for alternative or supplemental livelihoods in developing nations (e.g., Bauer, 2005; Croes & Vanegas, 2008; Laws, 2009; Mensah & Amuquandoh, 2010; Mograbi & Rogerson, 2007), it has yet to become an effective livelihood option for the majority of fisherfolk. Tourism

development in coastal areas may negatively impact fishing communities. The establishment of MPAs and no-take zones associated with the development marine tourism destinations tend to marginalise fishers (Christie, 2004; Fabinyi, 2007; Fabinyi, 2008; Fabinyi, et al. 2010; Oracion et al., 2005). The introduction of tourism and its associated environmental management schemes commonly result in reduced access to fishing grounds, though the reduction in access does not necessarily equate to reduced fishing efforts. As Cater and Cater (2007) noted, “not only may marine tourism may fail to divert the local populace from unsustainable activities but, ironically, it may even in some cases serve as an impetus because it inevitably attaches a financial value to nature” (p. 10).

While the overlap of resources associated with fisheries and marine tourism creates access points for fisherfolk, the struggle for control of the resources often creates conflicts of interest among marine resource stakeholders (Christie, 2004; Majanen, 2007). In the case of fishers and marine tour operators, with the exception of charter fishing, one depends on the taking of the resource while the other depends on the viewing of it (e.g., SCUBA). Such conflicts of interest within artisanal fishing communities would be considered contradictions to the success of tourism integration, thus, understanding the motivations of fisherfolk regarding a livelihood shift towards tourism becomes crucial.

Aside from literal conflicts of interest, there are more intangible conflicts associated with tourism integration such as wealth distribution and the necessary education and skills needed to host visitors. Previous research on the integration of tourism has proposed systems to minimise conflicts of interest and maximise the equality in the distribution of benefits (Bousset et al., 2007). Bousset et al. (2007) noted the importance in stakeholder linkages in the development of the policy process particularly with regard to wealth distribution. They go on to suggest and test a decision support system (DSS) that works to incorporate the views from multiple stakeholders. Whilst the DSS system has obvious applications in developed nations, its fault is that it assumes an understanding and awareness of tourism. The level of tourism knowledge and awareness within remote artisanal fishing communities is not well understood or documented.

Yet another contradiction to potential tourism integration within fishing communities is the availability of or the access to finance. In the case of fisheries, cooperatives, microfinance and financing schemes provide input systems that could support potential livelihood shifts. It is assumed that, provided the access to necessary funds exists, the success of tourism integration into remote artisanal fishing communities in developing nations would then be dependent on determining the viability of tourism as an alternative or supplemental livelihood. It would be further necessary to assess the availability of the skills (e.g., training, education) required to create a feasible tourism product. A participant in the research of Cheong (2003), Lee Kyoung-II, Deputy Director of Fishing Communities and Fishing Ports Division at the Ministry of Maritime Affairs and Fisheries, South Korea, commented, "fishermen do not have a 'tourism mind.' They all know tourism is good business but they do not know how to do it. Korean fishing communities are still at a very early stage of transition to tourism, and many of them are not prepared to undertake it" (p. 28). As noted by Cheong (2003), multiple factors must be considered prior to the assumption that tourism is a viable and sustainable livelihood for fishing communities. In order for a tourism integration development programme to be successful, the community must be able to sustain such a project independently (Lepp, 2008).

## **1.6 Rationale and significance of the study**

This research will explore the perceptions and understanding of tourism, including their perceived potential roles, of members of remote artisanal fishing communities in a developing nation. The potential social, environmental and economic effects of tourism development, as defined by the fisherfolk, will be documented and analysed. Fabinyi (2012) requested more attention be paid to the "interest of fishers in regard to marine resource use," further noting the benefit of doing so from the outset (p. 200). The research outcomes will serve to respond to this call by providing evidence to improve development initiatives involving remote artisanal fishing communities, as well as provide suggestions for the improvement of coastal marine resource management of coastal areas in developing nations. Through the study of fisherfolks' understanding of tourism and their potential roles in such an economy, the proposed research will give fisherfolk a voice in the current and future international development agendas and

help to fulfil the request of Oracion et al., (2005) by providing research that is “devoted to the study of fishery-tourism interactions in the context of a sustainable development agenda” (p. 409).

Previous work has concentrated on the perspectives of fisherfolk on fisheries and tourism interactions following the introduction of tourism or in areas of well-established tourism development. This research seeks to fulfil a gap in the research and address the shortcomings of current supplemental and alternative development strategies through the investigation of tourism as a viable supplemental livelihood for members of remote artisanal fishing communities as a precursor to the potential introduction of tourism. Abstaining from the assumption that a given community is ready, willing and able to engage in marine tourism as a supplemental or alternative livelihood, this research produces socially owned data in response to the global push for economic diversification. It aims to provide multiple examples of how members of artisanal fishing communities identify their involvement in marine management, potential tourism assets within remote artisanal fishing communities, and understand the social, environmental and economic risks and benefits associated with tourism as a potential supplemental or alternative livelihood. This research seeks to provide a realistic analysis and a transferable research model based on the opinions, understanding and perspectives of members of remote artisanal fishing communities in a developing nation. Findings from this body of research will assess the potential of tourism as a supplemental or alternative livelihood and to alleviate pressure on the resource(s) in remote artisanal fishing communities. A second aim of this research is to provide result-based suggestions to be applied towards marine conservation strategies and the improvement of sustainable fisheries management in remote artisanal fishing communities in developing nations. The outcomes of this research will serve to benefit the future livelihoods of the fishing communities through the understanding of tourism as a potential supplemental or alternative livelihood development strategy. It is therefore compelling to critically analyse the potential for and limitations of tourism integration into remote artisanal fishing communities as a development strategy, as well as the perceived environmental and livelihood effects of the introduction of tourism such communities.

### 1.6.1 Overall goal

The overall goal of this study is to examine marine tourism as a potential supplemental activity to remote artisanal fisheries in less developed nations. The following research question will be explored:

Is marine tourism perceived as a viable supplemental economy by and for remote artisanal fishing communities in Philippine fishing *barangays*, or communities (as examples of remote artisanal fishing communities in a less developed nation)?

Specific objectives include to:

- Evaluate fishing household members' perceptions of fishing livelihoods, the fishing economy and perceived needs for diversification and/or livelihood shifts.
- Provide insights into fishing household members' understanding of tourism as an economic activity and associated potential livelihoods.
- Identify the perceived social, environmental and economic risks and benefits of engaging in tourism.
- Investigate how members of remote artisanal fishing communities relate to the marine environment and marine management strategy.

### 1.7 Outline of the thesis

This thesis uses field data, specific to this study, collected from three fishing communities to investigate the understanding of tourism, tourism activities and tourism economies from the perspectives of members of remote artisanal fishing communities in the Philippines. The evidence gathered documents the willingness and potential for remote artisanal fishing communities to engage in tourism in a developing nation. Chapter two examines a wide body of literature relevant to the project. It begins by exploring the applicability of individual sources relating to the broader topics of coastal populations and artisanal fisheries followed by more refined subjects including fisheries management and fisheries development strategy through supplemental or alternative livelihoods. Chapter three describes the research design. This

chapter explains the applied ontology and epistemology. Supporting sources are used to explain the applicability of the methods used in this body of research. Chapter four details the results of the fieldwork conducted in a remote artisanal fishing community in Bolinao, Philippines and two remote fishing communities in Busuanga, Philippines. Chapter five brings supporting evidence to the data through the experiences and observations of key informants as representatives of significant stakeholder groups. This chapter compares the findings from this project to the current body of knowledge and in doing so considers the role of government-based fisheries management, international fisheries aid programmes, local and foreign owned tourism projects and fisheries focused non-governmental organisations (NGO) projects as they relate to the research. This chapter also introduces an emergent research question stemming from the findings and discussion of the fisherfolk data: How can tourism as a livelihood diversification strategy be developed appropriately given the constraints of remote artisanal fisheries based communities with little understanding about tourism? To answer this emergent question, models derived from key informant interviews and *in-situ* observations are presented. Chapter six, the final chapter demonstrates the importance of this project and its contribution to the wider discourse on development strategy for remote artisanal fishing communities. It argues that this thesis provides new data which increases the understanding of alternative and supplemental livelihoods, more specifically regarding tourism as a livelihood development strategy, in the context of fisheries improvement and development projects. Limitations of this research as well as future implications resulting from the research are discussed in this chapter. Finally, chapter six offers suggestions regarding how the findings from this research can be applied to improve development strategy and thus, potentially improve livelihoods and conserve vital marine resources.



## **Chapter 2: Literature review**

### **2.1 Introduction**

References to the literature are included throughout this thesis in attempts to provide evidence and support for the knowledge being discussed. The literature review presented in this chapter has been conducted to gain a comprehensive understanding about the existing body of knowledge relevant to this research. The review of the literature is divided into sections that progress from a broad overview of relevant published materials (particularly research and data) to more specific knowledge about the opportunities to provide livelihood diversification options for remote artisanal fisherfolk, and the demographics of the comparative case studies explored through this research.

This chapter is divided into four main sections. The first section of this chapter describes the fisherfolk and the artisanal fisheries of developing countries. The past literature has been analysed to provide an analysis of the common characteristics and attributes of the artisanal fisheries as well as of those dependent on them. Also explored are the main challenges, such as management, facing these fisheries and fishing people, as well as the socioeconomic drivers in the artisanal fisheries.

The second section of this chapter investigates development projects aimed at artisanal fisheries. Common to most all fisheries studies, Harding's (1968) Tragedy of the Commons is discussed as it relates to development strategy. Other areas, including politics in fisheries and power roles in fisheries are also brought into this discussion.

The third section focuses on development projects at an artisanal fisheries level. This section reviews the literature to demonstrate the current state of development strategy and need for livelihood diversification. In particular, development failures are explored in the literature to better understand limitations of the current approaches. Leading models, such as the sustainable livelihoods development and cooperative models are also investigated to determine their respective strengths.

The final and fourth section of this chapter is dedicated to exploring the issues surrounding a specific development option for livelihood diversification, marine tourism. Tourism has been a long-standing suggested development strategy and it has received much attention in the literature through so called 'pro-poor tourism' efforts. However, there remain few success stories that tourism, as a development strategy, is an effective approach. Here, examples from the literature citing the potential benefits and risks of tourism as a development strategy are outlined. Further, the often-touted approach of community inclusion or community-centric planning is scrutinised. This section goes on to place these literature-based analyses into the context of fishing livelihoods.

## **2.2 Coastal communities in developing countries**

The sea was once considered a vast frontier and an endless resource, but the rapid degradation of marine environments and collapse of some fisheries has proved this view a fallacy (Earle, 2009). The coast has become an increasingly sought after commodity with over half of the global human population residing in coastal zones. The Intergovernmental Panel on Climate Change (IPCC) predicts the world's coastal population to exceed 75% by 2020 (Allison et al., 2005). This shift towards coastal living will put increased strain on marine resources that are already lacking in management (Stobutzki et al., 2006).

For those in the developed world, life on the coast may be considered a commodity; however, for others life on the coast may be more of a necessity. The differences between such communities are observable, although the common labels assigned to measure these differences (e.g., Westernised versus non-Westernised, developed versus less developed/under-developed/developing nations, less economically developed versus economically developed nations, industrialised versus non-industrialised, first world versus second and third world) do little to describe the actual circumstances as perceived by those being described. There are critiques associated with all these labels; however, some such as first, second and third world infer political alliances rather than size of economies or standards of living. The term "developing country" is a widely accepted label for countries that have not yet achieved their stated desired level of development and is most often used by international

aid agencies such as the United Nations (UN) agencies and World Bank. As the criterion and indexes to qualify a country as developing are fluid and vary amongst organisations, there is not an internationally recognised definition of a developing country (UN Statistics Division, 2013). Therefore, this thesis will refer to any country that is currently engaged in development programmes or initiatives funded by international aid, with the exception of international NGOs (e.g., The Nature Conservancy, World Wildlife Fund) as a developing country. This definition in no way assumes that the nationals of a developing country have any desire to be developed, are accepting of 'Western' standards, or are seeking such change.

### *2.2.1 Vulnerability*

In developing nations, many coastal residents are faced with poverty (Bene, 2003) and a dependence on a declining resource (Bachetta, Ernst, & Bustamante, 2009; Chowdhury, 2009). While not all are categorised as such, many coastal fishing communities are part of small island developing states and territories (SIDSTs). The UN characterise SIDSTs as:

Low-lying coastal countries that share similar sustainable development challenges, including: small population, limited resources, remoteness, susceptibility to natural disasters, vulnerability to external shocks, and excessive dependence on international trade. Their growth and development is often further stymied by: high transportation and communication costs, disproportionately expensive public administration and infrastructure due to their small size, and little to no opportunity to create economies of scale. (United Nations Sustainable Development Knowledge Platform, n.d., n.p.)

The described vulnerabilities affecting SIDSTs are depicted by Pomery et al. (2006) as also being characteristic of many coastal communities. Pomeroy et al. (2006) suggest, "issues of resource access, marginalisation, market access, power imbalances, lack of information, and unsustainable resource use" as root causes of such vulnerabilities (p. 787). In particular, coastal residents of the Coral Triangle (an area which includes Indonesia and the Philippines) are facing coastal flooding associated with climate change (McLeod et al., 2010). Much attention has been given in the literature to the biological vulnerabilities of coral reefs, the associated fisheries and

to the social vulnerabilities of those dependent on them, primarily fishing communities (e.g., Bell et al., 2006; Klint et al., 2012; Moberg & Folke, 1999; Pandolfi et al., 2003; Pomeroy et al., 2006). Therefore, it is widely accepted that artisanal fisherfolk in remote fishing communities represent a vulnerable group. Kissling et al. (2005) expanded this characterisation to include risk factors of fishing communities for health vulnerabilities specific to sexual and reproductive health:

- Most people involved in fishing as an occupation are within the age groups (15 to 35 years) most vulnerable to sexually transmitted infections (STIs).
- Many fishing people are mobile or migratory, so the social structures that constrain sexual behaviour in home communities may not apply in the context of fishing camps or ports.
- Fishing is a high-risk occupation, which can contribute to a culture of risk denial or risk confrontation, extending to displays of bravado and risk-taking in the social and sexual arena.
- Fishing people are often socially marginalised and have low status, which can cause, among men, exaggerated or 'oppositional' forms of masculinity that challenge norms of behaviour adopted by those in 'mainstream' society.
- Masculinity in this context often includes the expectation of multiple sexual partners.
- Alcohol use is widespread among fisherfolk in many parts of the world, to help cope with the dangers or stresses of their occupation. This further compounds vulnerability to HIV.
- In addition, fisherfolk are vulnerable to HIV and AIDS due to inadequate prevention, treatment and mitigation measures and limited access to sexual health services more generally. (p. 1939)

While specific to health, the vulnerabilities described by Kissling et al. (2005) offer a further description of the fishing lifestyle including commonalities such as frequent emigration, involvement in a high-risk occupation, poverty, alcoholism and inadequate access to health and

other services. Additionally, Sobhee (2006) documents “immobility of labour, financial constraints and low educational attainment” as characteristics of a fishing community (p. 415). Thus, it is accepted that such vulnerabilities create considerable obstacles for artisanal fisherfolk trying to escape poverty.

### *2.2.2 Extractive uses of coastal marine resources*

The majority of economies that utilise marine resources depend on the extractive exploitation of marine resources (e.g., commercial fisheries, live fish reef trade, shark jaw and shell souvenirs, and the hobby aquarium trade). In developing countries, these exploitive economies are more often driven by foreign markets (Campredon & Cuq, 2001; Vincent, Meeuwig, Pajaro, & Perante, 2007). The foreign markets demand rare or endemic species for aquaria hobbyists (Wabnitz, Taylor, Green, & Razak, 2003), shell craft specimens for souvenirs (Floren, 2003), dried specimens for medicinal purposes (Vincent et al., 2007), or export species for human consumption (Dalabajan, 2009). In the case of consumptive marine species the extent of the manipulation of fisheries products is massive (see Table 2.1) with profits taking precedence over sustainability and carrying capacities. Under-exploited species are commonly renamed to improve their market value (Pauly & Jacquet, 2006, 2007).

The myriad of extractive uses of the marine resources goes beyond the unsustainable exploitation of the resource to include the exploitation of the people (Earle, 2009). High economic leakage associated with extractive uses of marine resources makes benefits at a local level a rare occurrence (Bauer, 2005; Floren, 2003; Moore & Best, 2001; Wabnitz et al., 2003). Additionally, the race to secure a part of the marine market share has caused governments to utilise strategies that create artificialities within the fisheries (Hilborn et al., 2003; UNFAO, 1993). In situations where there are administrative controls on the price of fishing supplies and equipment (e.g., petrol, nets, and gear) as well as the price of fish, the fishers mistakenly become indentured to those in power, forever unable to achieve financial independence.

Table 2.1: Examples of Market Manipulation in Fisheries

Scientific name	Original name	Renamed/rebranded
<i>Hoplostethus atlanticus</i>	Slimehead	Orange roughy
<i>Dissostichus eleginoides</i>	Patagonian toothfish	Chilean sea bass
<i>Glyptocephalus cynoglossus</i>	Witch	Torbay sole
<i>Squalus acanthias</i>	Spiny dogfish	Rock salmon
<i>Ruvettus pretiosus</i>	Oilfish	Blue cod
<i>Sebastes spp.</i>	Rockfish	Pacific red snapper
<i>Merluccius spp.</i>	South African hake	Scarlet snapper
<i>Oncorhynchus keta</i>	Chum salmon	Silver brite salmon
<i>Ictalurus punctatus</i>	Channel catfish	Southern trout, ocean catfish
<i>Pangasius bocourti</i>	'Basa'	White roughy, pacific dory
<i>Cancer irroratus</i>	Rock crab	Peektoe crab

*Note.* Summarised from Pauly and Jacquet (2007).

### 2.3 Artisanal fisheries

The interests of artisanal fisheries often overlap with those of the commercial fisheries (e.g., resource use conflict). While often thought of as insignificant in comparison to commercial fisheries, artisanal fisheries are of great socioeconomic significance (Silva, Sobrino, & Gil, 2002; Vincent et al., 2007). The term artisanal is often substituted with traditional, subsistence, municipal, small-scale or non-industrial fisheries (UNFAO, 2004; Hauck, 2007; Kent, 1986; Vincent et al., 2007). Kalikoski, Vasconcellos and Lavkulich (2002) offer a case-study comparison of artisanal, semi-industrial and industrial fisheries, highlighting the importance of area fished, boat size and power, fishers per boat, length of trip, total catch and gear type (see Table 2.2).

Table 2.2: Characteristics of Three Types of Fisheries Sharing Fish Common Pool Resources (CPRs) in Southern Brazil Federal Institute for the Environment (IBAMA)

Fishery	Artisanal	Semi-industrial	Industrial
Area	Estuary, marine inshore	Marine inshore and offshore	Marine inshore and offshore
Boat size (m)	<10	12-15	20-35
Fishers/boat	2-3	6-8	6-10
Power (HP)	10-24	90-120	250-650
Days fishing/trip	1	3-4	10-15
Capacity (tons)	<10	12-20	20-120
Gear type	Gillnets, trawling, bagnets, and stownets	Gillnets, hook and line	Trawling, gillnet, purse seine

*Note.* Adopted from Kalikoski et al. (2002, p. 182).

Similar to the description of Kalikoski et al. (2002), Pomeroy (2006) notes that “fishing itself is a diverse occupation, with most fisheries in Asia being both multi-species and multi-gear in nature” (p. 787). The UNFAO (2014) glossary adds to the definition, describing artisanal fisheries as:

Traditional fisheries involving fishing households (as opposed to commercial companies), using relatively small amount of capital and energy, relatively small fishing vessels (if any), making short fishing trips, close to shore, mainly for local consumption. In practice, definition varies between countries, e.g. from gleaning or a one-man canoe in poor developing countries, to more than 20m trawlers, seiners, or long-liners in developed ones. Artisanal fisheries can be subsistence or commercial fisheries, providing for local consumption or export. They are sometimes referred to as small-scale fisheries. (para. 2)

UNFAO (2014) notes that the term artisanal fishery identifies a sector that is inherently different from both industrial and recreational fisheries. Guhn (2001) and Dahl (1988) add to this, pointing out that the artisanal fishery is often a decentralised operation. Further the

artisanal operation is likely to employ kin (Kalikoski et al., 2002). Acheson (1981) describes the inclusion of kin as a response to the uncertainties of fishing. There is debate within the literature regarding the characteristics of artisanal vessels. Campredon and Cuq (2001) describe artisanal vessels in terms of engine horsepower (<100HP), although Kalikoski et al. (2002) limits artisanal vessels to those using lesser horsepower (<10HP). Silvia et al. (2002) and Vincent et al. (2007) introduce the important attribute of seasonality of target species within an artisanal fishery. Hollup (2000) states the lack of representation of user-groups within small-scale fisheries in the creation of management policies. Within the Philippines, the term artisanal fishery is synonymous with municipal fishery. Municipal fishing “refers to fishing within the municipal waters using fishing vessels of three (3) gross tons or less, or fishing not requiring the use of fishing vessels” (Philippines Fisheries Code, 1998). Municipal waters in the Philippines:

Include not only streams, lakes, inland bodies of water and tidal waters within the municipality which are not included within the protected areas as defined under Republic Act No. 7586 (The NIPAS Law), public forest, timber lands, forest reserves or fishery reserves, but also marine waters included between two lines drawn perpendicular to the general coastline from points where the boundary lines of the municipality touch the sea at low tide and a third line parallel with the general coastline including offshore islands and fifteen kilometres from such coastline. Where two municipalities are so situated on opposite shores that there is less than thirty kilometres of marine waters between them, the third line shall be equally distant from opposite shore of the respective municipalities. (Philippines Fisheries Code, 1998, n.p.)

Rejecting that artisanal operations are an industrial or directly involved in export fisheries, for the purposes of this research, an artisanal fishery will be referenced as a non-industrial, small-scale, traditional fishery with limited technologies involving local communities that fish mainly for subsistence purposes or for the local benefit of the local village.



### *2.3.1 Impacts of artisanal fisheries*

While deemed economically significant, the artisanal fisheries sector lacks data on fishing efforts and catch (Mensah & Antwi, 2002). This has led to its common exclusion from fisheries management processes (Hauck, 2007). The lack of management attention given to the artisanal fisheries is largely based on an assumption that artisanal fisheries are lower-impact operations when compared to industrial fisheries. However, Pinnegar and Engelhard (2008) as well as Kronen et al. (2010) demonstrated the potential for significant impacts from artisanal fisheries on strategic stocks and overall fish populations. Furthermore, Campredon and Cuq (2001) report that declining catches have forced artisanal fishers to expand their areas and introduce different fishing techniques and target species (e.g., shark nets) leading to an overall increase in effort and consequent increases in by-catch. This is supported by the work of Batciados (2004), who described a decline in fisheries as inversely related to an increase in the use of illegal fishing techniques such as dynamite and sodium cyanide.

Hawkins and Robert (2004) found increased artisanal fishing intensity to be correlated with a decline in coral cover. Lokrantz et al. (2009) add that declines in species richness or biodiversity are possible indicators of excessive fishing pressure. Lokrantz et al. (2009) describes the importance of herbivorous fishes in the function of a healthy coral reef ecosystem noting that herbivorous fishes were targeted by nearly 50% of artisanal fishers. Similarly, Tsehaye and Nagelkerke (2007) highlighted the important role of reef fishes; their study recommended a reduction in reef catch to preserve fisheries, and an increased effort towards targeting pelagic species. Recommendations to shift a fishery from near-shore species to pelagic species are not uncommon (e.g., UNIFAD, 2005). Shifting target species of a fishery will alleviate the fishing pressure on a specific stock, but at the expense of another stock creating new vulnerabilities.

### *2.3.2 Socioeconomic drivers and marine resource use*

The link between socioeconomic drivers and marine resource use is becoming more prevalent in the literature. Turner et al. (2007) explored the reliance on marine resources as an indicator of a coastal community's ability to cope with environmental changes. Similarly, Kronen et al.

(2010) investigated socioeconomic drivers as indicators of marine resource exploitation. Both studies detail an inverse correlation between immediate resource dependency (fresh fish consumption) and increased income. Turner et al. (2007) showed that increased income led to a decrease in fresh fish consumption. Likewise, Kronen et al. (2010) found that improved incomes from diversified economies were linked to consumer food choices; these choices were often associated with a lesser reliance upon local and fresh marine resources as a staple protein (e.g., the “luxury” of tinned fish).

Understanding socioeconomic drivers of behaviour is a necessary and important component of natural resource management (Kronen et al., 2010). There is a delicate balance between biomass, effort, and the economic drivers (e.g., market value) of the resource (Arnason, 2007). Arnason (2007) argues that the profits of fishers are directly correlated to the catch. Therefore, if the catch begins to decline, increased efforts combined with more efficient fishing methods and gears are often a first response of fishers to make up for revenues in lost catch (Fabinyi, 2007). The increase in efficiency may consequently exacerbate the decline of the stock. As fishers introduce newer gears and increase fishing efforts, their costs rise, while the revenues remain unchanged or in decline with the catches. Figure 2.1 depicts this scenario, showing that an increased effort in attempt to break even economically will place the resource in jeopardy of over-exploitation.

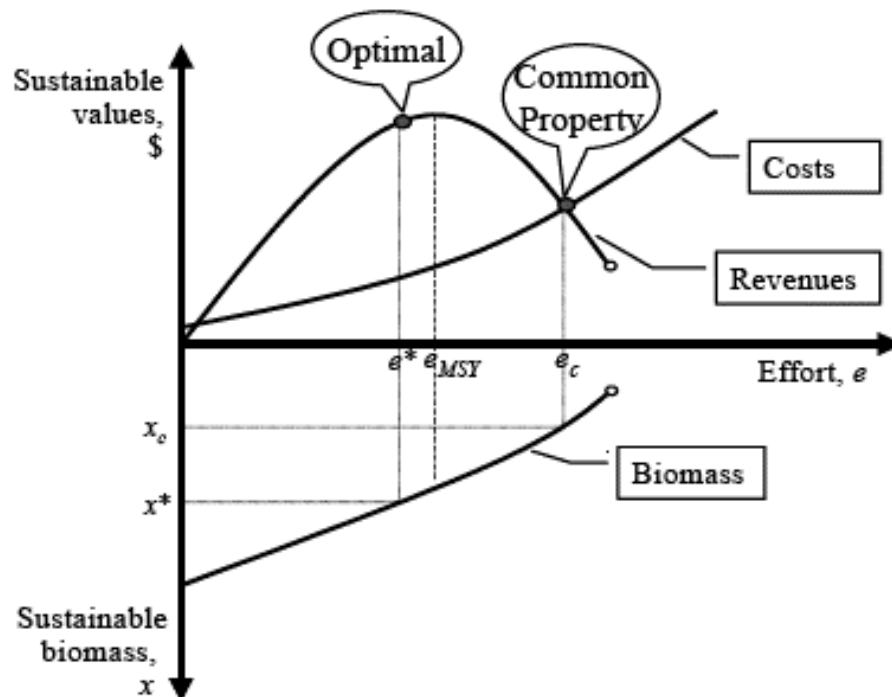


Figure 2.1: Sustainable fisheries model. Adopted from Arnason (2007, p. 159).

## 2.4 Managing artisanal fisheries

### 2.4.1 Tragedy of the commons

Due to the open access of the seas, Hardin's (1968) observation of the "Tragedy of the Commons" is often applied to fisheries, citing the oceans as the common resource vulnerable for overexploitation. The fishers who use the ocean resource benefit individually at the expense of the commons, or the ocean. Pomeroy et al. (2006) explained the attraction of this type of exploitation from the perspective of fisherfolk noting that the resources "are typically 'open access' and are easily exploited with minimal capital resources" (p. 790). The "Tragedy of the Commons" is a common justification for fisheries management failures (Sobhee, 2004) and has been cited as a causative factor in poverty of fisherfolk (Bene, 2003). The reality of the artisanal fishing industry is far different than that of the commercial fisheries sometimes depicted in mainstream media (e.g., Discovery Channel's *Deadliest Catch*) where tens of thousands of

dollars can be made over the course of a week. Instead, the realities of artisanal fisherfolk in developing countries oscillate between a small profit margin and a family famished and barely fed (McClanahan & Castilla, 2007; Sobhee, 2006). Acheson (1981) addressed this in his work on the anthropology of fishing stating, “by way of contrast, those depending on common property resources are locked into a system in which it is only logical that they increase their exploitation without limit” (p. 277). Thus, the “commons” creates a considerable challenge within fisheries management; as with most wildlife, management-defined boundaries are not understood by the resource, in this case, the fish (Grafton et al., 2006).

Grafton et al. (2006) found that there are few fisheries management schemes that take into account both economic and biological objectives. Further, they found that “regulations (especially input controls) affect fisher behaviour and performance often in negative and counterproductive ways that can be damaging to fisheries” (p. 128). Fidelman et al. (2012) added the management challenge, the complexities associated with a “diversity of existing institutional settings across the region” (p. 43).

#### *2.4.2 Power roles within fisheries*

In many areas, power plays a primary role in the fisheries rules and regulations (Michel, 1982). Hollup (2000) portrays the limitations of the involvement of fishers in policy due to rank:

Some fishermen and representatives of fishermen's organisations claimed that there is no real discussion of the fishermen's problems in the consultative meetings, since they only go through the minutes and raise simple matters. As long as the minister is present together with other government officials most fishermen and their representatives are afraid to speak out for fear of reprisals. Apart from these consultative meetings at the national level, there are no regional consultative committees or other local government bodies (district and village councils) involved in fisheries management, its implementation and enforcement. (p. 419-420)

The research of Vincent et al. (2007) called for the exploration of social, economic and cultural factors to support effective artisanal fisheries management. Hauck (2007) added that in-depth understanding of the inter-relationships between the stakeholders and the fishery, specifically power relations, is necessary to achieve compliance (see Figure 2.2). The research of Grafton et al. (2006) supported similar ideals stating that regulations should support societal interests and that incentives must reach both management and fisher levels.



Figure 2.2: The influence of power and the formation of law in understanding fisheries compliance. Taken from Hauck (2007, p. 636).

The detailed work of Fabinyi’s (2012) ethnographic research in the Philippines presented power roles in another context. In his description of morality amongst fisherfolk, Fabinyi (2012):

... noted fishers presenting as ‘pitiful’ (*kawawa*) specifically for the purposes of establishing reciprocal relations with those more powerful. Here, fishers expect the rich and powerful to recognise their inherent human dignity and treat them with humanity (*makatao*), creating a shared social world. (p. 8)

#### 2.4.3 Political overlap

Remote artisanal fisherfolk are a vulnerable group. Pomeroy et al. (2006) summarised the issue of political marginalisation as a root cause of vulnerability for the fisherfolk demographic, stating, “addressing marginalisation requires empowerment of community members and the transfer of economic and political power from a few to the impoverished majority” (p. 791). Due to this political vulnerability fisherfolk may be targeted as an “easy vote” and become susceptible to political manipulation. An example of this is the “bad weather allowance,” a subsidy given to Mauritian fishers on days when the weather conditions are not conducive to

fishing. M. Bunce, Rodewell, Mee and Gibb (2009) noted that these allowances have failed to support the fishers and instead have served as political leverage for those trying to gain the vote, as many residents will register as fishers to gain the allowance on “bad weather days.”

The political manipulation can be mutual. Hollup (2000) added to the overlap of fisheries and politics reporting that frequent poaching of fish and use of illegal gear types is commonly excused with bribery of enforcement officials. Likewise, Fabinyi and Dalabajan (2011) described the seeking of “pity” from the local politicians whom aim to appeal to the “moral economy” of Filipino fisherfolk (p. 375). Also in the Philippines, Dalabajan (2009) described a similar political manipulation in which officials have failed to sign protective legislation into place to appease the fishers and earn the vote. In addition, other research specific to the Philippines has cited politics as having a negative effect on overall development (e.g., Fabinyi, 2010; Goldoftas, 2006).

#### *2.4.4 Management gaps*

Grafton et al. (2006) suggest approaching fisheries management by influencing the economics of the fisher rather than the managing the fisheries. Applying this theory to artisanal fisheries in developing countries, fisheries management may also be a case of poverty management.

To date, the majority of fisheries management schemes employ a top-down approach (M. Bunce et al., 2009; Cheong, 2005; Hollup, 2000; Sobhee, 2004). It is unsurprising that many of the fisheries management schemes fail. According to Grafton et al. (2006):

Fisheries managers simply do not have the information to adequately manage fisheries through a system of top-down controls. The vagaries of stock assessment and the inability to fully observe actions of fishers at sea mean that detailed regulations and controls are unlikely to optimise management actions. Instead, fishers themselves – if given the right incentives – are often the best people to work out how to address stock or other problems at a local level. (p. 128)

Hauck (2007) requested an integration of socio-economic and fisheries policies with a paradigm shift from asking; “how do we increase compliance with rules?” to, “how do we minimise harm?” (p. 640).

## **2.5 Fisheries development projects at artisanal levels**

Fisheries in developing countries account for a substantial economy and play a significant role in international development strategy. According to Arnason (2007), the annual input assistance from developed nations is comparable to the annual profit/loss due to resource mismanagement of fisheries, a value of 50 billion US dollars. Mensah and Antwi (2002) note that international aid organisations view fisheries and extractive uses of marine resources as a means to increase revenue. Industrialising fisheries continues to be a prominent sector in the development initiatives of less-developed coastal countries (M. Bunce et al., 2009). The UN and affiliate organisations are involved in many development projects of artisanal fisheries in developing nations. A common project goal of fisheries development initiatives is the improvement of livelihoods through the expansion and industrialisation of artisanal fisheries. Such fisheries development projects are reliant upon the use of efficient modern technologies and gears to significantly increase the catch, shifting the exploitation of the resource from a subsistence level to an industrialised, commercial level (e.g., UNIFAD, 2005).

### *2.5.1 Industrialisation and modernisation as development*

The application of modernisation and industrialisation in developing countries took full swing following the UN's successful efforts in Europe post World War II (Dyll, 2009). The strategies used in Europe were applied to non-European and less-developed nations. There is a contextual difference in social environments between the “developed” and the “developing” worlds. Where one tends to be accustomed to modern economies, corporate businesses and the nuclear family, the other is highly dependent on local economies, dynamic communities and extended familial relationships. Dyll (2009) describes this modernisation as a process emergent from both macroeconomic and social evolutionary theory. Fisheries modernisation projects are measured by gross national product (GNP) and growth targets often take precedence over the

environment and conservation strategy (Sobhee, 2004). The current “development” process invests profits into more efficient fishing technologies that will eventually replace labourers (Smith, 1981). Muallil et al. (2011) described the risk of improving fishing efficiency, noting it; “results in even higher extraction intensity of the fish stocks, further undermining sustainability (p. 75). Despite the faults of this industrialised approach, well described by Hauck, Dyll and others, this fisheries strategy continues to dominate development projects (Dyll, 2009).

Many internationally funded fisheries initiatives (e.g., United Nations International Fund for Agricultural Development (UNIFAD) strategies: *Nampula Artisanal Fisheries project*, *Sa Tome project*, *Mozambique Artisanal Fisheries Project*, *Mauritius Marine and Agricultural Resources Support Programme*, *Eritrea Fisheries Development Project*) are designed to increase efficiency through the provision of new vessels, modern gears and leading technologies (e.g., fish finders, GPS). Hauck (2007) referred to the development goals that depend on increased catch and resource exploitation as biological goals. The objective of increasing catch and profits through efficiency may suit a virgin resource, but with global fisheries in decline (Bell et al., 2006; Hilborn et al., 2003; Sobhee, 2004), fisheries development projects more commonly contribute to the overexploitation of the resource instead of meeting the social goals of the projects (Hauck, 2007).

## **2.6 Development in declining fisheries**

While fisheries development projects are inclusive of a resource management strategy, Hollup (2000) questioned the success of such plans. He explained, that many developing countries lack experience with the necessary fisheries management tools (e.g., maximum sustainable yield, coastal area management plans, MPAs, monitoring, control and surveillance). Just one example of failed implementation comes from a long-term artisanal fisheries development project in Mozambique, which failed to mitigate the use of destructive fishing techniques or implement effective management (UNIFAD, 2010).

It is important to note that international aid directed at the development of fisheries, may arrive at a time when the resource is already stressed or in decline. In terms of fisheries, the



education programmes necessary to support management, as well as monitoring and surveillance strategies, are often lacking (Hollup, 2000; Pietri, Christie, Pollnac, Diaz, & Sabonsolin, 2009).

#### *2.6.1 Sustainable livelihoods development*

In 2000, UNFAO reported on the holistic approach of the Sustainable Fisheries Livelihoods Programme. The aim of the programme was to increase support for the organisation of cooperatives and to improve the market reach of fisheries related products. Brocklesby (2003) noted that the Sustainable Livelihoods Approach (SLA) (see Figure 2.3) is a common reference in fisheries development by international development agencies. He described the associated prioritisation of capital assets over the strengthening livelihood security as a drawback of the approach. The sustainable livelihoods model accounts for variations in assets and vulnerabilities, though the interrelationships of the variables are complex. A further limitation of the model may be the applied measures of efficacy. In the case of rural communities such as fisherfolk, the “livelihood outcomes” are largely based on Western principles (e.g., the value of a solid floor, number of rooms per dwelling), yet these measures are applied in non-Western cultures. Noting such inefficacies within the model, Brocklesby (2003) suggested that the SLA is a “smokescreen” for an ineffective approach that overlooks the experiences and perspectives of the community members.

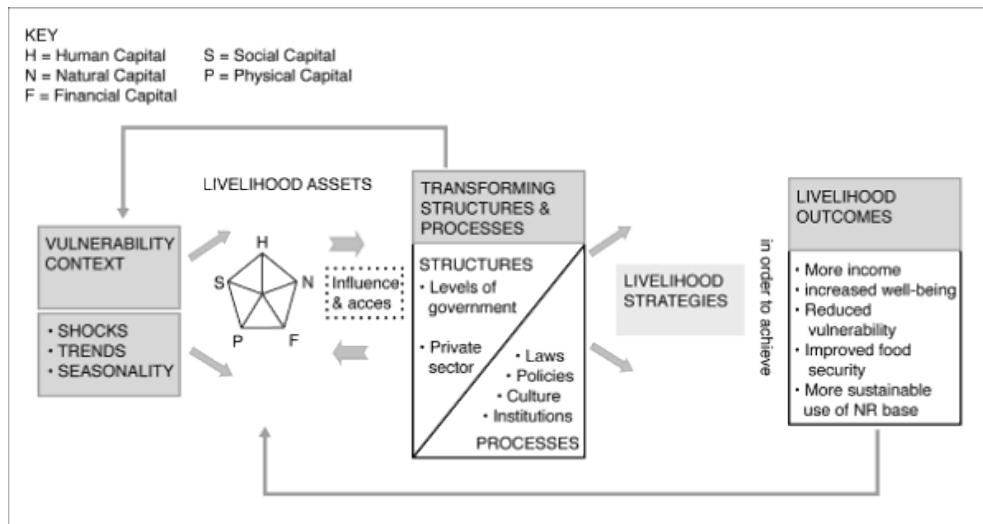


Figure 2.3: Sustainable Livelihoods Model. Source: DFID 2001: livelihoods@difd.gov.uk. There is evidence to suggest that this commonly applied model does little to incorporate the local community's perspectives or wishes.

Prieto-Carolino and Polotan-dela Cruz (2013) suggested modification of the SLA by suggesting a conceptual understanding of livelihoods. They proposed the livelihood framework model (see Figure 2.4). The figure itself does little justice to the intent of the model. In their explanation of the model, Prieto-Carolino and Polotan-dela Cruz (2013) stated the need to look, “more in detail at the local resources and skills available to people for constructing their livelihood activities.” They went on to clarify that the model; “analyses strengths (not necessarily needs) and identifies peoples’ inherent potentials” (p. 111).

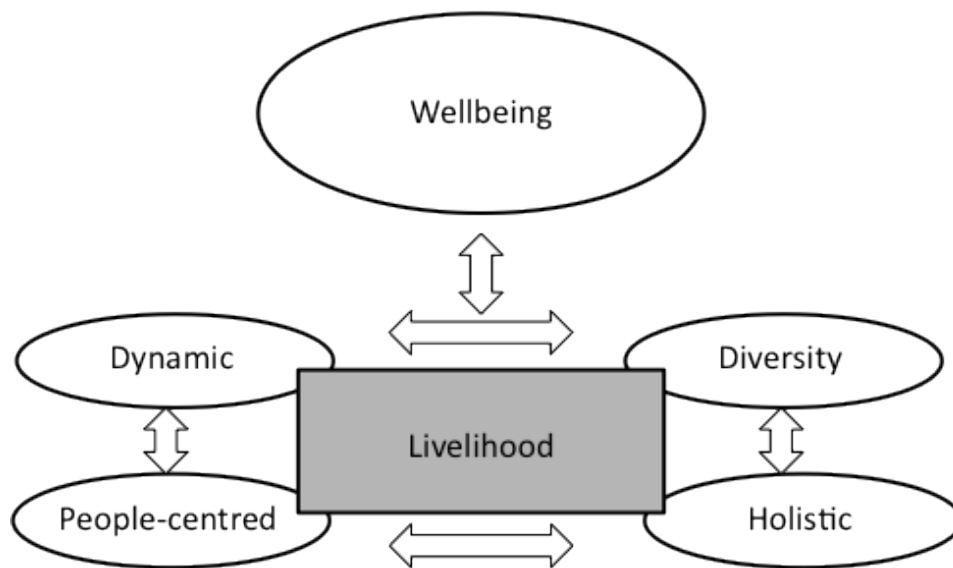


Figure 2.4: Livelihood framework. Taken from Prieto-Carolino and Polotan-dela Cruz (2013, p. 111).

Others such as Cater and Cater (2007) have also suggested modifications to the SLA. Specifically in reference to marine ecotourism, they suggest the inclusion of cultural capital as a livelihood asset not only as a measure of benefits, but also costs. In their thorough examination of the assets associated with the SLA, Cater and Cater (2007) noted that the systems used for development associated with cultural capital (e.g., environmental protection) are largely based on Western constructs.

### 2.6.2 The cooperative model

Development programmes often utilise the cooperative model. Both formal and informal cooperatives are common to artisanal fisheries (Prieto-Carolino & Polotan-dela Cruz, 2013). For example, an informal cooperative may include a financier and those being financed. In the case of financed fishers, the financier supplies gear and equipment (e.g., fuel, ice) in exchange for labour and purchase rights of the catch. In formal cooperatives, participants typically share equipment and resources through membership. Cooperative members are required to sell the bulk of the catch (e.g., 80%) to the cooperative organisation [for later market distribution] at a fixed rate. The cooperative then pays a portion of the profits to the fisher and withholds a small

percentage in an individual savings fund for the fisher. Such programmes are designed to promote individual economic resilience. Thus, while the majority of the profits go directly to the fisher, the cooperative retains small profits from the fixed-rate sales and is able to utilise its members' savings-funds to create a revolving credit fund. The revolving credit fund in turn allows the cooperative to function as a rural bank allowing members to access loans for investment in capital equipment (e.g., fishing gear, vessels and the like).

Microfinance schemes are similar to cooperatives and may not be limited to certain activities. The cooperative model, microfinance programmes and the financier arrangements are all conducive to the integration of other activities due to the accessibility of funds and equipment. This access to equipment and funds provides a suitable platform, in theory, for the creation of livelihood diversification opportunities for fisherfolk, such as tourism development.

The UN Programme on Cooperatives (2010b) recognises a cooperative as, “an autonomous association for persons united voluntarily to meet their common economic, social and cultural needs and aspirations, through a jointly owned and democratically controlled enterprise.” Whilst the intimate structures of cooperatives vary by industry and locale, the guiding principles remain unchanged:

- Voluntary and open membership;
- Democratic member control;
- Member economic participation;
- Autonomy and independence;
- Education, training and information;
- Cooperation among cooperatives;
- Concern for community. (UN Programme on Cooperatives, 2010b)

A well executed fishing cooperative is designed to allow fishers, otherwise restrained by lack of capital, access to newer gear technologies (e.g., gear, boats, GPS). The United Nations International Fund for Agricultural Development (UNIFAD) provides funding and support for agricultural development initiatives including fisheries development through fisheries

cooperatives. However, many projects do not produce the desired results or in some cases results are not measured. A UNIFAD (1992) evaluative project report revealed some of the shortcomings of such an initiative in Sao Tome:

The lack of data referring to the situation before the project, even on a sample basis related to a limited number of beaches, does not allow the effects of the activities financed to be measured. No general trend of production increase or improvement of the quality of life can therefore be identified. Nevertheless, on the beaches visited by the Mission there appeared to be a strong demand by the fishermen for spare parts, fishing gear and related short-term credit, as well as a widespread need for the transportation and conservation of fish. As far as the formulation of a fishing resource management policy is concerned, no progress has been made nor has an attempt been started in this sense. (para. 15-16)

Fisheries development projects such as those initiated and supported by UNIFAD provide international funding to strengthen capacity of governmental management and cooperative management. The projects include seed money to fund microfinance programmes and/or revolving credit funds. The cooperative members are then allowed to apply for business loans to begin or expand a business. These loans, provided by project sponsors and local governments are targeted at allowing the fisheries cooperative members to acquire capital equipment necessary to undertake fisheries operations (UNIFAD, 2005). The security of the revolving credit is ensured through the submission of business plans or strategy prior to the release of funds. The intent is that the goods and services provided by a cooperative will advance with the growth of the sector (A. Benhammouche, personal communication, Jan 20, 2011). In the fisheries this may begin with the provision of fresh fish to the market and expanding to other market niches such as cold storage, net mending, and engine repair.

### *2.6.3 Cooperative growth*

Baticados (2004), realised the potential for success of fishing cooperatives both economically and socially along with their power to serve as a social force in coastal marine management;

however, noted that the success of such models are dependent on the provisions of adequate training. In addition to providing social and economic benefits, development strategy often relies upon cooperatives based on the theory that the evolution of cooperative services is not limited to a single sector. The research of Aref and Gill (2009) depicted the potential for use of tourism cooperatives (see Figure 2.5), yet reported a lack of cooperatives in the tourism field.

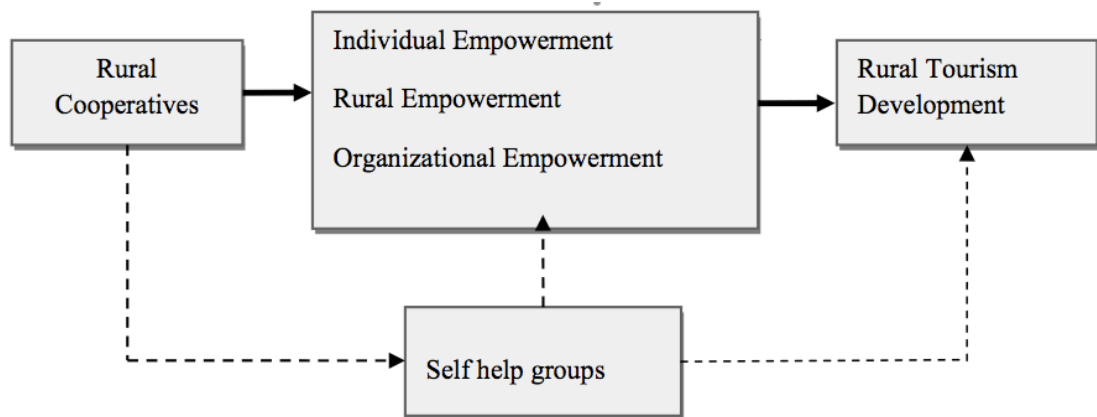


Figure 2.5: The interaction between rural cooperatives and rural tourism development.  
Adopted from Aref and Gill (2009, p. 72).

#### *2.6.4 Limitations of cooperatives*

The operating standards of cooperatives implemented by development agencies are seemingly designed with minimal input from the fishing or host communities (personal observation, January 2011). This top-down approach to the design and formation of cooperatives results in lack of internal support for the cooperatives and for the project in general. This assumption is supported by Hollup (2000) who emphasised the fact that few development success stories exist. It is common for fishers to find a more competitive market outside of the cooperatives and sell their catch for immediate cash (Hollup, 2000).

### *2.6.5 Diversified economies*

There is evidence that diversified economies can alleviate pressure on a natural resource such as fisheries. Access to diversified economies then becomes an important objective for limiting resource exploitation (Kronen et al., 2010; Turner et al., 2007; Sobhee, 2006). Kronen et al. (2010) stated; “that unfavourable economic conditions at the national scale often go hand in hand with limited access to alternative income sources, putting more importance on coastal marine resources and leading to higher dependency on them, which triggers high resource exploitation” (p. 1140). Figure 2.6 depicts the associated complexities of the drivers in marine resource dependency while also showing how limited access to alternative incomes effects fishing pressure and overall dependency on the resource (Kronen et al., 2010). Thus, the research of Turner et al. (2007) and Kronen et al. (2010) among others have demonstrated the need for livelihood diversification as a means to protect both the coastal communities and the marine resource.

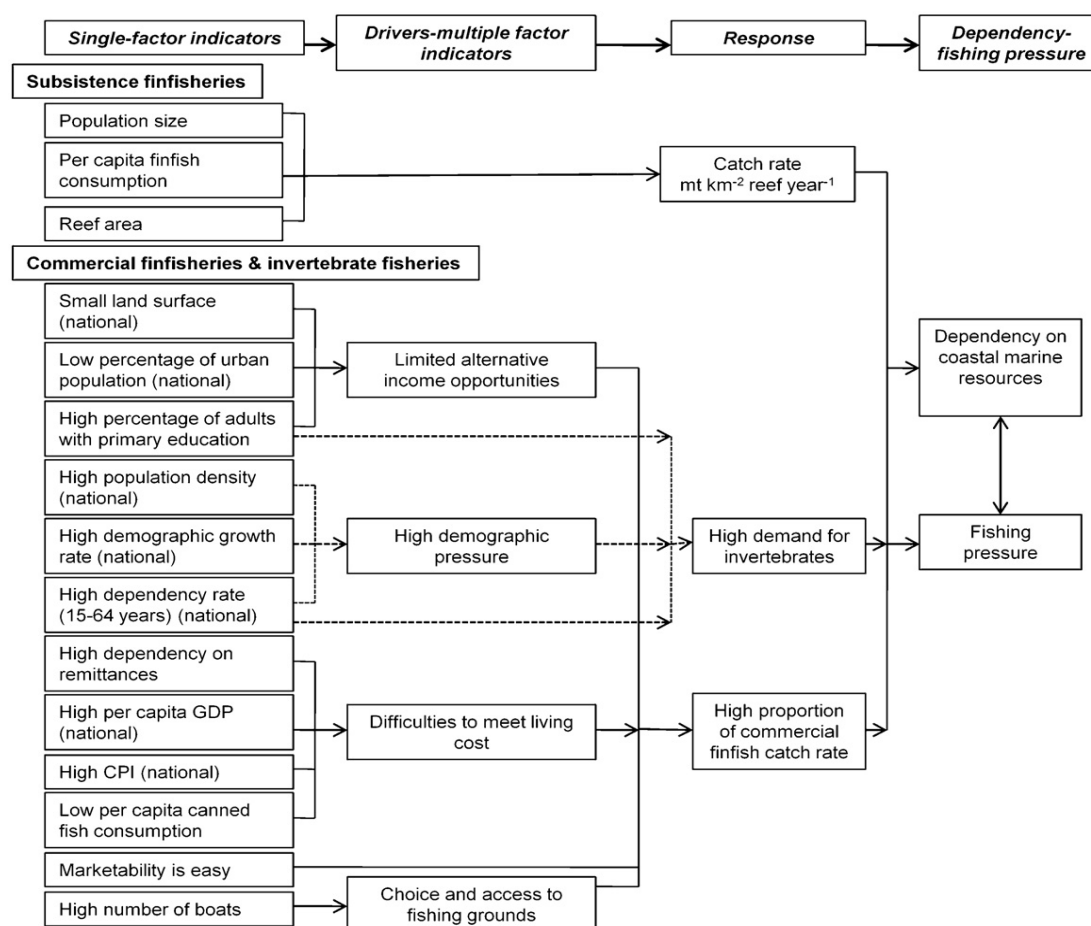


Figure 2.6: Indicators and major drivers determining responses of catch rates, dependency on coastal marine resources (subsistence and income) and fishing pressure. Adopted from Kronen et al. (2010, p. 1138).

#### 2.6.6 Long-term effects of fisheries development programmes

Smith (1981) rejected the notion that a modernised approach is applicable to a traditional artisanal fishery. Smith's (1981) work (see Table 2.3) preceded that of Arnason's (2007) as he described the balance between profits, loss and over exploitation of the resource.

Modernisation has been and continues to be the primary tool of development agencies. As evident in Table 3, the long-term effects of fisheries development projects are questionable both in terms of economic and environmental sustainability.



Table 2.3: Long-term Effects of Development Programmes on an Overexploited Fishery

First and second round effects on:			
Development method (primary objective)	Sustainable yield	Number of fishermen	Income of individual fishermen
Upgrade vessels and gear (increased productivity)	Reduced	Reduced	Increase for a few in short run; no effect in long run.
Subsidise inputs (lower costs)	Reduced	Increased	Declines in long run.
Improve marketing and post-harvest technology (increase prices)	Reduced	Increased	Indeterminate (depends on elasticity of supply and demand) Increases
Form cooperatives or other organisations (increased prices)	See note*	See note*	See note*
Develop alternative or supplemental income sources (increased incomes)	Increased	Reduced	Indeterminate (depends on elasticity of supply and demand) Increases

*Note.* Assumptions: (1) the resources is ‘open-access’ in nature and is already exploited to that point where total revenue generated by the fisheries equals total cost of participating in the fisheries; (2) the resource is already biologically overfished, that is, maximum sustainable yield (MSY) has been exceeded. \*Cooperatives are also organised in some cases to reduce input costs, in which case the long-term effects will be the same as if inputs were subsidised (see (2) above). Taken from Smith (1981, p. 20).

## 2.7 Marine tourism in developing countries

The diversity of the tourism industry and its associated potential for equal opportunity employment make tourism a relevant strategy for poverty alleviation (Bauer, 2005; Croes & Vanegas, 2008; Laws, 2009; Mensah & Amuquandoh, 2010; Mograbi & Rogerson, 2007). Fabinyi (2010) described the allure of “ecotourism” for many governments of developing nations:

In many parts of Southeast Asia, the Philippines, and in Palawan province in particular, ‘ecotourism’ has become the new buzzword as governments try to both cash in on the financial windfall of tourist profits, and to emphasise various forms of eco-tourism as a way of shifting local engagement with marine resources away from purely extractive uses. (p. 415)

Fabinyi’s reference to ecotourism as a buzzword stems from the difficulty in defining this so-called tourism “sector” (Orams, 1995; Orams, 2002b). Phillips (1997) argued that legitimising the term ecotourism is challenging due to its associated entrepreneurial opportunities. Another sector of tourism relevant in development nations is pro-poor tourism or tourism that aims to improve the livelihoods of the poor (Kenneth, 2000).

The terms ecotourism and pro-poor tourism are relevant to this research; however, due to disagreements in the literature regarding these terms, this research uses the term tourism, exempt of any debatable adjectives or prefixes. Therefore, this research accepts that tourism, in any context, including its application as a livelihood diversification strategy associated with development, is first and foremost, an economic activity. However, as this research considered tourism as a strategy to reduce pressure on the natural resources and improve the livelihoods of the host community, by design, the intent of such tourism would be both environmental and social.

Some sectors of tourism, such as marine tourism, are arguably more applicable as development strategies in coastal communities. Marine tourism has been suggested as an agent for marine conservation (Orams, 2004) and as a sustainable economic activity (Armada, White, & Christie, 2009). The ability of marine tourism to improve livelihoods was demonstrated by Alcala and Russ (2006) who found that the establishment of a marine reserve (as an effect of tourism) contributed significantly to the improvement of the standards of living of local residents. This finding is consistent with Orams’ (2002a) previous research. He found that the whale watching tourism industry in Vava’u, Tonga contributed to growth of the GDP and had, “significant potential in contributing to an improved future for the Tongan people” (p. 377).

Alternatively, some argue that coastal and marine tourism has potential to increase pressure on fisheries through an increased demand for seafood (Schumacher, Zilger, Kunkel, & Gössling, 2004). However, Schumacher et al. (2004) found that tourists in Zanzibar consumed only 1% of the fish catches. Instead, they found tourists substantially increased the souvenir trade, significantly increasing the demand for shark teeth and jaws.

## **2.8 External economic influences of tourism development in developing nations**

Mograbi and Rogerson (2007) measured the economic effects of dive tourism on coastal communities in South Africa by assessing participation, associated employment opportunities and site-user fees. Their results showed that while dive tourism did create additional opportunities for local employment for “black” members, “whites” owned the majority of business and therefore largely controlled the sector.

Similarly, a case study of Korean fishing communities who transitioned towards tourism (Cheong, 2005) found that the majority of marine tourism efforts in developing countries were largely driven by foreign investors, governments, development agencies or expats (expatriate foreigners living and/or working abroad). In some cases, the communities sold the access to their fishing grounds (Cheong, 2005). Similarly, Brunnschweiler (2010) detailed a foreign-owned marine tourism venture in Fiji aimed at promoting shark conservation. As part of his project, the exclusive access rights and associated fishing quotas were purchased from the local community. Brunnschweiler (2010) stated that the benefits of the project are twofold. First, the community receives a relatively stable source of income through user-fees and second, through the creation of the no-take marine reserve area, fish populations are recovering.

The sale of access rights described by Brunnschweiler (2010) and Cheong (2005) is classified as a direct approach or payment to biodiversity conservation (Ferraro & Kiss, 2002), a market driven largely by outsiders. Both Beeton (2006) and Fabinyi (2010) have described the risks of tourism economies driven by foreign investors explaining that these projects may contribute to, rather than alleviate, rural poverty. Further, Ferraro and Kiss (2002) argued that direct payments for conservation are a response to consumptive Western values. While they note

that, “biodiversity is a valuable commodity and biodiversity protection is an alternate land use” (p. 1719), biodiversity protection as a land use fails to consider subsistence use of a resource.

### *2.8.1 Marine tourism and fishing communities in the Philippines*

The Republic of the Philippines faces the challenges of a developing nation. In the case of remote artisanal fishing communities, the workforce is sustained as younger members replace aging members when they are no longer seaworthy. The environmental degradation of near-shore waters has affected the sustainability of this traditional cycle. Cheong (2005) noted that declining catches cause younger members of fishing communities to leave home in search of better opportunities. The emigration of the youth can be detrimental for the community and family as traditions may be lost when there are not sufficient replacements for an aging workforce. Aside from the impact to the community, the emigrants are also at risk as they often leave without the education or skills needed in more urban areas (Cheong, 2005). Emigration in the Philippines is apparent as workers move not only from local provinces to larger cities, but also abroad to secure employment opportunities. In 2010, remittances paid by Overseas Filipino Workers (OFWs) ranked as the second largest export for the Philippines (Bangko Sentral NG Pilipinas, 2011; National Statistics Office of the Philippines, 2011).

Marine tourism continues to be an evolving economy in the Philippines. This section presents some examples from the literature of marine tourism programmes affecting fishing communities in the Philippines. A case study by Samonte-Tan et al. (2007) revealed that the net benefits of tourism in the Philippines exceed those of the fisheries. Further, their findings demonstrated that the coastal-marine environment is capable supporting more than one economic activity (Samonte-Tan et al., 2007). Similarly, White, Vogt and Arin (2000) touted the potential environmental and economic benefits (from increased catch and small-scale tourism use) from a well-managed coral reef.

Within the Philippines, one of the most well known examples of a shift from fishing towards tourism comes from a World Wildlife Fund (WWF) initiative in Donsol. In Donsol, nature-based and swim-with-whale sharks tourism has replaced the whale shark butchery. Quiros (2007)

noted the positive socioeconomic impacts from whale shark tourism for fisherfolk. The presence of whale sharks in other areas throughout the Philippines has led other communities to follow suit.

Another example of tourism as development programme within the Philippines is a community based tourism initiative for three villages launched by the Philippines-Canada Local Government Support Programme (LGSP). Within the agricultural-based municipalities of Ajuy, Concepcion and San Joaquin, Philippines, communities whose primary activities included fishing, farming and services, a tourism development strategy included an island-hopping product, an island tour and nature walk and an 'authentic' experience respectively (UNWTO, 2006). The goals of the island-hopping programmes were to offer a supplemental activity to the villages' main activities (UNWTO, 2006) Fisherfolk served as boatmen in the island hopping programme in Ajuy, and throughout the projects, the community residents were the major participants (UNWTO, 2006) It is believed that these programmes are no longer operational; however, the current status of these programmes is officially unknown.

Tourism, as does any strategy, has its limitations (Oracion et al., 2005). Within the Philippines, UNWTO (2006) noted the challenges arising from tourism development. These included issues such as significant delays in the processing of necessary documents due to government bureaucracy, issues with participation in training programmes due to conflicting livelihood priorities, and limited opportunities for participation in the tourism industry. Therefore, it is important to note that in some cases of tourism as a development strategy, the potential benefits may be masked by the potential contradictions. Multiple works by Fabinyi (2008, 2010) detailed similar shortcomings of tourism as development strategy. He described positive linkages between MPAs and tourism (Fabinyi, 2008); however, his later research documented a case in which tourism development escalated land disputes (Fabinyi, 2010). Noting that fisherfolk may be labelled as "squatters," despite having resided in a particular location for many years or even decades, Fabinyi (2010) described how an increase in land value resulting from tourism development often leads to the removal of the so-called squatters. Such scenarios indicate tourism should be considered a strategy with many complexities.

### *2.8.2 Contradictions to tourism development in the Philippines*

The Philippines has no shortage of complexities. First, as Hunt (1992) explained:

The Philippines has two characteristics which differentiate it from other countries in Southeast Asia. It is the only predominantly Christian country in the region and it has one of the highest rates of population growth...Given the Catholic Church's objections to both contraception and abortion, it is not illogical to hypothesize a relation between the religious composition of the population and its rate of population growth. (p. 208)

The rapid population growth continues to increase the pressure on the environmental resources (Hunt, 1992). The Republic of the Philippines has been categorised as a hotspot for both marine and terrestrial biodiversity. A terrestrial hotspot is defined as an area that hosts at least 1,500 (0.5%) endemic species of the world's 300,000 plant species (Myers et al., 2000). This criterion is based on two basic assumptions. First, that plants are essential to most forms of life and second that plants are scientifically well known and documented. The categorisation of a hotspot was originally a label reserved for terrestrial areas, but has since been applied to the marine realm. The Philippine Islands have been described as the centre of marine shore fish biodiversity (Carpenter & Springer, 2005). Although the criteria for marine hotspots are not well defined, a marine hotspot is recognised as an area with high biodiversity and endemism that is under extreme threat. Thus, the degraded current states of both the terrestrial and marine environments of the Philippines may make forms of nature-based tourism challenging.

In her narrative, Goldoftas (2006) uses poignant examples of events of environmental decline within the Philippines, describing the associated costs to the people. Her semi-ethnographic accounts described the economy of the Philippines as being "skewed toward a small elite" (p. 13). This observation is supported by Fabinyi's (2010) description of land insecurities of indigenous groups in the Calamianes (Palawan, Philippines). Likewise, Ong, Storey and Minnery (2011) found tourism had further marginalised native groups in other areas of the Philippines. With the wealth safeguarded, environmental management and protection in the Philippines have often been overlooked (Goldoftas, 2006). When applying this effect to fisherfolk the

resource becomes the source of wealth and consequently a source of conflict. Fabinyi (2008) found that as a result fisherfolk in the Calamianes Island group expressed resentment towards tourism, largely due to segregation between the two sectors [tourism business and fisherfolk] who were using or competing for the same resource. Similar sentiments towards tourism developers were described by Ong et al. (2011). In his later work, Fabinyi (2010) investigated how fisherfolk of the Calamianes Islands, Philippines negotiate coastal livelihoods in response to a government driven push for tourism industries. He found the fishers of the Calamianes continued to experience mixed outcomes from the integration; whereas some fishers were able to derive benefits from entering the tourism sector, the influence of power between the tour operators and the fisherfolk remained notable. Fabinyi (2010) provided an example of this conflict using the story of a local fisher:

Ed was a fisherman in his twenties who decided to capitalise on the increase in tourism by registering his boat with the municipal authorities as a tourist boat. After two months of taking tourists out, in the middle of one trip he encountered a problem when his engine failed on him, with tourists on the boat. Unable to restart the engine and continue the beach-hopping expedition, the foreign owner of the resort where the tourists were staying confiscated the boat and refused to return it, demanding 23,000 Philippine Pesos [about 460 US dollars] as payment for the supposed losses he had incurred. Despite numerous pleas made to the local municipal government, the boat remained in the resort owner's hands. (p. 423)

Although tourism is frequently suggested as a conservation strategy (e.g., Garrod & Wilson 2004; Hooker & Gerber, 2004; Orams, 2004; Orams & Forestell, 1995), there are numerous accounts of tourism contributing to environmental degradation. For example, in the Philippines, Quiros' (2007) study which investigated the impacts of the industry on whale shark behaviour, cited the lack of management infrastructure and enforcement activities as negatively affecting the environment. Monitoring and surveillance are key factors in promoting tour operator compliance; therefore, the lack of enforcement has created adverse effects on whale shark behaviours (Quiros, 2007). A later report by Quiros (2008) noted that the locals were not

necessarily the ones reaping the benefits, citing leakages and government corruption as contributing factors. This is supported by Pine (2007) who also cites politics and government red tape as a hindering factor in the Donsol whale shark tourism industry. Pine (2007) blames corruption for the problems with wealth distribution for the locals. Fabinyi (2010) summarised the direct effects of political interference within the Philippines, describing, “many such negative effects of tourism for local fisherfolk are bound up with larger questions of class, land tenure insecurity and governance patterns in Philippine society” (p. 425).

Another example of tourism development negatively impacting the environment comes from Boracay, one of the most popular beach tourism destinations in the Philippines. Ong et al. (2011) used past data to evaluate the current state of environmental and cultural sustainability in Boracay, finding that despite significant changes in response to previous issues, “Boracay continues to face a number of well-known threats to its environmental sustainability” (p. 558).

## **2.9 Marine tourism as a livelihood diversification strategy for artisanal fisherfolk**

### *2.9.1 Potential costs and benefits*

There is widespread agreement that tourism should be considered as a viable poverty alleviation tool (Croes & Vanegas, 2008; Laws, 2009; UNWTO, 2004). The examples presented above have revealed that there remain potential risks and costs associated with tourism development; however, an alternative economy, such as marine tourism may provide a profitable and more sustainable (e.g., non extractive) use of coastal-marine resources (Garrod & Wilson, 2004) in comparison to the fisheries. Nature-based marine tourism has long been recognised as a potentially sustainable industry with significant economic influence on small economies (Bauer, 2005; Beeton, 2006; Orams, 2001). Likewise, nature-based marine tourism has been used as a strategy to replace a resource-depleting industry (Orams & Forestell, 1995; Quiros, 2007). Thus, nature-based marine tourism continues to be suggested as a possible intervention to improve resource management strategy (Hooker & Gerber, 2004).

### *2.9.2 The environment*



MPAs are a commonly applied fisheries management strategy within the Philippines (Oracion et al., 2005). Likewise, much of the literature concerning the benefits of marine tourism development focuses on the creation of MPAs (Fabinyi, 2008). Tourism is often characterised as an alternative resource use in MPAs, especially in MPAs designated as no-take zones (Oracion et al., 2005). Previous research on the efficacy of MPAs in the Philippines and their social impacts on the community found visitor user fees to be of direct benefit to the community supporting marine management and community infrastructure development (Walmsley & White, 2003). Another potential advantage of MPAs is the associated environmental benefits. Russ et al. (2004) reported that MPAs created pristine ecosystems that contributed to the growth of tourism as well as enhanced the livelihoods of fishers (through economic benefits and increased catches). Other research has contributed similar findings to the literature on MPAs by identifying the economic value of healthy marine ecosystems (e.g., Russ et al., 2004; Wilson & Tisdell, 2003). Similar to Russ et al. (2004), Diedrich (2007) found a positive correlation between the growth of tourism and the perceptions of improved quality of life among fisherfolk. Additionally, Diedrich (2007) found exposure to tourism increased the levels of coral reef conservation awareness among fisherfolk. Cheong (2005) found fisherfolk associated economic benefits with tourism livelihoods noting, “individual fishermen consider it [tourism] good business because it is not costly to perform tourist services using boats they already use for commercial fishing” (p. 1285).

The need for livelihood diversification opportunities for fisherfolk is evident in the literature (Garrod & Wilson, 2004, Pollnac et al., 2001; Sobhee 2004, 2006). In addition to providing alternative or supplemental revenue streams, tourism may prove easier to manage than fisheries. In the case of tourism, access can be controlled through site-user fees. Additionally, many forms of marine tourism (e.g., snorkelling and wildlife viewing) are non-extractive in that the marine organisms remain in the water as a reusable resource. However, in places like the Philippines, environmental management is riddled with a lack of enforcement and corruption (Dalabajan, 2009). Further, environmental costs resulting from tourism development are commonly observed from resource overuse or misuse (Ong et al., 2011; Pine, 2007; Quiros,

2007). Thus, tourism carries its own set of environmental risks and should not be viewed as a one-off solution for resource management (Chok & Macbeth, 2007; Meyer, 2011).

### *2.9.3 The community*

The introduction of a new sector such as tourism can quickly lead to conflict among user groups, especially when both depend on the same resource. Saarinen (2010) explained how, due to a lack of awareness, a host community may not be able to realise or identify with these risks. Suggestions for minimising harm have been suggested throughout the literature. For example, multiple researchers have called for community inclusion and community sensitivity in the planning processes (Beeton, 2006; Johnston, 2006; Mensah & Amuquandoh, 2010). There is little in the literature that describes the transition of fisherfolk into tourism industries, much less to suggest a transferable strategy. Instead, the majority of the research documents the realities and experiences of fishing communities following a tourism shift (e.g., Fabinyi, 2010; Mograbi & Rogerson, 2007; Quiros, 2007). Research that explores fisherfolk attitudes towards and perceptions of tourism post development provides valuable “lessons learned;” however, it does little to address the perception-based realities and desires of fisherfolk regarding the desire to engage in tourism as a livelihood diversification strategy. Thus, noting that poverty alleviation and livelihood diversification are common goals of tourism as a development strategy, understanding factors contributing to segmentation of the industry is a priority (Fabinyi, 2010; Mensah & Amuquandoh, 2010).

Beeton (2006) loosely defined a strategy that explored resident attitudes to create a vision for tourism. However, the desire to “be developed” is rarely considered even within such a “sensitive” approach. Addressing the desire to be developed, Johnston (2006) opposed the assumption that tourism is ‘good for the people’ and called for community consultation prior to development. She suggested resulting words that may signal community concerns:

- Insulted, compensated, tokenised;
- Deceived, misled, misinformed;
- Bullied, intimidated, threatened;
- Relocated, reserved, institutionalised;
- Exploited, indentured, abused;
- Marginalised, repressed, oppressed;
- Labelled, degraded, humiliated;
- Assimilated, exhibited, sexualised;
- Discounted, belittled, stereotyped. (p. 254)

Tourism integration efforts that fail to formally understand and consider the desires and needs of the local community place the host community at risk (Johnston, 2006). To minimise the risk of integration failure, assessing resident attitudes becomes critical (Beeton, 2006). Mensah and Amuquandoh (2010) believe the direct and continuous input from a host community is necessary when developing an integration strategy for pro-poor tourism. Likewise, The World Tourism Organisation (2004) suggests participatory research may benefit the host community if used as a method during tourism integration. The involvement of community groups in Philippines’ coastal resource management has long been recognised (Baticados & Agbayani, 2000). Alcala (1998) identified community involvement as the greatest predictor of project success. With this specific reference to community-based coastal resource management (CBCRM) Alcala (1998) outlined important indicators, suggesting that:

A highly successful community-based project may thus, be characterised by the establishment of (1) viable organisation or organisations in the community; (2) a working

marine reserve protected by the community; (3) sources of livelihood based on coastal (fishery) resources; (4) networking arrangements with government and international agencies, and NGOs; and (5) a capacity-building programme. (p. 183-184)

In the context of the Philippines, it thus becomes important to describe a common community-level group, the People's Organisations. As stated in the Constitution of the Republic of the Philippines, "people's organisations are bona fide associations of citizens with demonstrated capacity to promote the public interest and with identifiable leadership, membership, and structure" (Estrada, 2010, p. 2).

These examples describe the need for a framework for community-based tourism development that works to consider the desires and realities of the potential host communities. However, to date, a general framework, as well as a framework specific to remote artisanal fisherfolk has yet to be described.

## **2.10 Summary**

This chapter has provided a critical analysis of the academic literature surrounding fishing communities in developing nations. The literature reveals that, not only are there many factors influencing the livelihoods of fisherfolk, but also that there remains a wide range of approaches to development strategy for this demographic. The investigation revealed a dated approach to development despite it being a continuously evolving issue. In terms of tourism as a development strategy, Croes and Vanegas (2008) argued a "need for public and private intervention in the development strategy of tourism expansion" (p. 102).

The Philippines archipelago, due to its geography is home to many examples of fishing communities that have, in some capacity, adopted tourism as a livelihood diversification strategy (e.g., Bohol, Batangas, Anilao). Globally, there are other examples of similar phenomena. For example, in the small, coastal village of Puerto Lopez, Ecuador, a non-governmental organisation has offered training to the fishers so that they may promote themselves as 'responsible' whale watch guides (Pacific Whale Foundation, 2010). Similarly,

Chen (2010) described the results of a government initiative for tourism integration in Taiwanese fisheries. Cheong's (2005) exploration of fisheries management in fishing communities transitioning to tourism provides one of the few published examples of the transition and surrounding issues of a community from fishing towards tourism.

There is a void in the current body of knowledge regarding effective strategies for livelihood diversification of fisherfolk. Due to a significant overlap in both equipment and resources used in the fishing and tourism sectors (e.g., boats, coastal waters) fishing communities appear to be an ideal development platform for marine tourism activities (Cheong, 2005). What remains unclear is why so many fishing communities, even those within close vicinity of successful tourism markets, remain primarily dependent on the fisheries. Chen (2010), found resource user conflicts, lack of business skills of the fishers and lack of community capacity as potential obstacles for fisherfolk attempting to enter the tourism sector, thus, the access points into the tourism sector for fishing household remain vague. Other studies in the literature have revealed other issues associated with tourism development. For example, Fabinyi (2010) described unequal wealth distribution, Oracion et al., (2005) described resource-user conflicts and Quiros (2007) found resource degradation to be associated with tourism development in coastal areas. While the study presented in this thesis does not address these issues, these potential risks were considered to ensure the applicability of the data gathered from this research.

Kronen et al. (2010) demonstrated that households from Pacific island fisheries who relied upon the fisheries as their primary source of income were more poverty-stricken than households with access to alternative livelihoods. Thus, it has been argued that livelihood diversification through an alternative industry such as tourism may economically benefit fisherfolk and potentially lessen the pressure on the marine resource (Kronen et al., 2010; Sobhee, 2006). Unfortunately, livelihood diversification is not a simple path. In the case of tourism and fisheries in the Philippines, Fabinyi (2010) described challenges associated with the maintenance of fisheries (from the economic vantage of the fishers). He found that although the administration was eager to push for the development of tourism development on the basis of protecting the resource (e.g., ecotourism) and through the creation of livelihood

opportunities for fisherfolk, capital intensification within the fisheries continued (Fabinyi, 2010). The existing capital investment (e.g., boats, gears) was a driving factors in the choice of fisherfolk to remain in the industry even despite the declining catches (Fabinyi, 2010). Ultimately, Fabinyi (2010) concluded that tourism, as a livelihood diversification is possible only if the needs of the community are addressed and the benefits of tourism remain largely within the community.

The efforts of international aid agencies and other organisations have produced a large amount of information regarding characteristics of fisherfolk as well as on livelihood diversification. Yet, little has been done to place such information in the context of fisherfolk realities. To date there has been a lack of sufficient evidence for the long-term benefits to both the community and the resource to consider the current strategies effective. Thus, there remains a need to explore the realities of fisherfolk to determine the applicability and viability of tourism as a livelihood diversification strategy for fisherfolk. This is the gap that this thesis research seeks to fill. The following chapter outlines the research questions on which this study has been based. It also outlines the adopted research and methodological designs as well as describes the settings of the study.

## Chapter 3: Research Design and Methods

But you see already how democratic she [pragmatism] is. Her manners are as various and flexible, her resources as rich and endless, and her conclusions as friendly as those of mother nature. (William James, 1907, p.25)

### 3.1 Introduction

This research is interdisciplinary in that I draw upon multiple fields including tourism studies, development studies, socioeconomics, and marine ecology. Certain recommendations from previous research influenced the design of this study. In particular, the following objectives were contemplated prior to commencing this research and were used to guide parts of this research:

- Alleviating rural poverty through the provision of a supplemental income source (UNIFAD, 2005);
- Protecting and managing the resource(s) (Forestell, 2007; Marion & Reid, 2007; Orams, 1997);
- Promoting responsible and sustainable tourism (Jacobson & Robles, 1992);
- Furthering public support and implementation of minimal impact practices (Zeppel & Muloin, 2008);
- Training fishers as resource managers (Garrod & Wilson, 2004).

Consequently, I use more than one research paradigm and, therefore, adopt a pragmatic approach to this research (Schuh & Barab, 2007). I chose to use three cases to explore the potential of tourism as a supplemental or alternative livelihood for remote artisanal fishing communities in a developing nation, the Philippines. Stake (1995) referred to this as a “collective case study” approach (p. 4). The perceived viability for tourism to be an alternative or supplemental livelihood for remote artisanal fishing communities in a developing nation was explored through the following research questions:

1. How do members of fishing households identify with fishing as a livelihood?
2. How do members of remote artisanal fishing communities perceive the current state of the marine environment and the marine management strategy?
3. What is the level of understanding of tourism and tourism activities within remote artisanal fishing communities?
4. What are the perceived costs and benefits (social, environmental and economic) of engaging in tourism as a livelihood diversification?

To date, the majority of development and integration initiatives have been based on the realities and experiences of outsiders. Easterly (2006, p. 11) explained that this is reinforced and supported by the widespread use of foreign aid from developed countries to advance economic development objectives for the under-developed nations. As a solution, he suggested an alternate approach in which development strategy relies more heavily upon insider (local community) involvement, ideas and realities in order to effect successful change (Easterly, 2006).

My personal view is that the views and aspirations of the local community must not only be considered, but must take precedence in any initiatives directed at changing that community. Furthermore, as a researcher and an outsider, I consider that I must seek to understand and represent the experiences and views of the community I am studying and to carefully consider my interpretation of those views in the analysis and evaluation of the data. Thus, my role as a researcher in this context is to represent the views and perceptions of the local community in the context of the focus and goals of this research. To that end, in this chapter I will identify my ontological and epistemological perspectives as they pertain to this research and, as a consequence, I will explore my own experiences and values as a researcher and consider how they relate to and affect the research. From this I will discuss my choice of methods and finally I will describe the study sites in which I chose to explore my research questions.



## 3.2 Paradigm and rationale

### 3.2.1 *Ontological view*

Ontology is the nature of being, or more simply stated, a view of reality. Pluralistic realities are common within the social sciences leaving the best research approach an area of debate (Della Porta & Keating, 2008). I consider myself as a pragmatist with regard to my ontological view of reality and how perspectives on reality are created.

Early advocates of pragmatism such as William James (1907) believed that the democratic approach offered by pragmatism allows the complexities of research to be addressed for the benefit of the research. James (1907) stated that pragmatism, “has no objection whatever to the realising of abstractions, so long as you get about among particulars with their aid and they actually carry you somewhere.” He continues on to argue that researchers should be “interested in no conclusions but those, which our minds and our experiences work out together, she [pragmatism] has no a priori prejudices against theology. If theological ideas prove to have a value for concrete life, they will be true, for pragmatism, in the sense of being good for so much” (p. 22). With this description of pragmatism, James emphasises the importance of allowing ‘the data to speak’. In doing so, James does not suggest an invalidation of the data through a loose methodology; instead he suggests that validity be improved by choosing appropriate theologies as fitting for the benefit of the data rather than confining the data to a single methodology. Schuh and Barab (2007) view pragmatism as, “neither an epistemology or an ontology,” and instead describe knowledge as being, “derived from interaction among groups of individuals and the artefacts in their environment, both of which create a reality” (p. 72). Though the classification of pragmatism varies amongst scholars, the underlying idea is that it focuses on the emphasis of a functional truth.

Perceived realities are what define the social sciences. For remote fisheries dependent communities in the Philippines and elsewhere, the impact of traditional views, communally held and reinforced ideologies and lifestyles is reality. In the context of this study I hold the view that reality for remote Filipino communities is a socially constructed phenomenon.

Consequently, I consider it imperative that the reality that is experienced and perceived by the participant communities should be the basis for this research. This assumption is supported by Beeton (2006) who prioritises the inclusion of resident attitudes and experiences within rural tourism developments. My approach is also shaped by the realisation that the use of tourism as an alternative livelihood as a part of a development strategy has yet to prove an effective way for combating poverty on a large scale. As Cattarinich (2001) notes that while, “tourism in itself is insufficient as a poverty reduction strategy, it could be a significant component of a broader pro-poor economic growth strategy” (p. 8). Thus, my motivation for this research and approach to it is in line with Cattarinich’s contention, in that I wish to explore the viability of the supplemental use of tourism as both a potential development and conservation strategy. However, in doing so, I believe that local community views and aspirations are critical and fundamental considerations.

While this study focuses on understanding the perceived realities of members of remote fishing communities, it also is based on an ontological paradox. Such, apparently contradictory paradigms are consistent with a pragmatic approach which affords the researcher the ability to accept the existence of other realities that can be viewed as absolute and factual (as opposed to constructed). I consider that there is a range of objective measures of reality relevant to this study. Examples include; the numbers of fish being caught, the health and status of the marine ecosystem (as measured by biomass, nutrient loads, productivity and so on), the age, mortality, dietary intake and monetary income of the community members. These measures (while admittedly socially constructed units) I accept as meaningful, objective and true measures of reality. Such ‘true’ measures of reality may differ from the views of fisherfolk (e.g., with regard to fisherfolks’ perceptions versus ‘scientific’ measures of the health of the ecosystem). Thus, for this research while I adopt a view that accepts there are multiple views of reality I also accept that perceptions may be inaccurate measures of reality and that there are measures which represent ‘truth’ such as robust scientific fisheries health data. The pragmatic approach I apply to this study allows for flexibility in considering the value of various data and the application of a range of methods (mixed methods) relevant to the questions being explored.

### *3.2.2 Epistemological view*

Within the pragmatic paradigm I take in approaching this research, I include two complementary epistemologies, constructivism and phenomenology (Clark, 1998; Guba & Lincoln, 1994; Siegfried, 1976). In keeping with a pragmatic approach and avoiding the manipulation of the research to fulfil a specific epistemological discourse, this study adopted both a modern phenomenological approach as summarised by Creswell (2009), and a constructivist or interpretivist paradigm (Racher & Robinson, 2002). Together these two paradigms allow contradictions in the data to be addressed to depict the reality and experiences of the community (Husserl, 1929). Proponents of constructivism understand that the interactions between the researcher and the participants contribute to the knowledge construct, thus, affecting the research outcomes (Racher & Robinson, 2002). Such a paradigm is appropriate here to accomplish the research goals of gaining insights into participant perceptions and realities.

This research sought to identify potential factors that may be considered limiting to a community's ability to access a tourism market. Additionally, this inquiry attempted to better understand the willingness of members of remote artisanal fishing communities to engage in tourism as a supplemental livelihood. Previous studies exploring tourism as a poverty reduction strategy (e.g., Beeton, 2006; Himmetoglu, 1996; Mensah & Amuquandoh, 2010) have emphasised the need to adapt to the desires of the host communities. The application of both constructivism and phenomenology creates research outcomes that are dependent not only on the perceptions of the participant communities and the interpretation of these by the researcher, but also on the linkages created between the researcher and the participants (Racher and Robinson, 2002). This dynamic approach allowed the reality that was experienced by the participants in regards to tourism as a supplemental livelihood to be explored and transformed into qualitative data that may be relevant in the creation of future development strategies.

### *3.2.3 The researcher and the research*

At this point, it is appropriate to discuss the relationship between myself as the researcher and this body of research. My academic background is in both the natural and social sciences, and I have been an advocate of bridging science and education together as an effective strategy for positive environmental change. The impetus for this research stemmed from direct work with an international aid agency on a fisheries development programme in Eritrea in 2010 and 2011. Prior to that experience, I directly observed efforts on a similar project funded by an international aid agency in Mauritius. In both cases, I witnessed the environmental and social shortcomings of the commonly applied development strategy for small, artisanal fisheries in developing nations, one that is based on industrialisation and expansion of the fisheries. In addition to gaps within the designs of such projects, corruption and other issues within the government were influential factors affecting the programme outcomes (Dalabajan, 2009; Easterly, 2006). Most notably, internal issues, such as limited access to project sites and distribution of funds, affected the fisheries development project in Eritrea and the project was placed on indefinite hold (A. Benhammouche, personal communication, Jun 17, 2013).

These experiences were influential for me as I learned that significant investment in development projects seldom achieved meaningful and improved outcomes for local people or the environment on which they depend. This caused me to question the value and effectiveness of overseas aid and fisheries development projects in less developed countries. While I am passionate about and an advocate for marine conservation and education, I do accept that education, outreach, legislation and science are not effective as independent strategies. Thus, development initiatives for remote fisheries dependent communities in the less developed world are a conundrum. The quality and quantity of fish catches are declining for these communities, and yet they are being encouraged to increase fishing efforts to sustain their livelihoods. This is the context within which this study occurs. What I do believe is through a better understanding of the nuances, challenges and contexts of specific cases, more effective strategies can be designed and implemented whereby the dual objectives of helping fisheries

dependent communities and protecting the ecosystems on which they depend might be achieved. That is my hope for this research.

### **3.3 Selecting the research method**

#### *3.3.1 Research approach*

This research explored the viability of tourism as a supplemental livelihood for remote artisanal fishing communities. Tourism studies have relied traditionally upon discrete, measured positivist outcomes; however, the undefined qualitative realm of action research is often approached with caution (Williams & Cervin, 2004). This study used phenomenology as a both a framework and as a methodology (Fereday & Muir-Cochrane, 2006). Phenomenology allows the story of the experiences and reality of the community to be told by the community (Husserl, 1929). As mentioned in the earlier section regarding epistemological views, constructivism (also referred to as naturalism, interpretivism and subjectivism) has been identified as a complimentary component of phenomenology (Clark, 1998; Guba & Lincoln, 1994; Siegfried, 1976). In his work on social phenomenology, Schutz (1932) explained:

Human behaviour is thus already meaningful when it takes place, and it is already intelligible at the level of daily life, although, to be sure, in a vague and confused way. The vagueness is cleared up in several stages, at each one of which there takes place a rearrangement of meaning-structure. (p. 10)

Qualitative research can be used to encourage social change (Coghlan & Brannick, 2001; Sarantakos, 2005). More specifically, action research, often referred to as participatory action research, has the ability to produce dynamic research resulting in social change. As this study was exploratory in nature, the application of action research would have been limiting. However, the sensitivity provided by action research to the participants and the community is compelling, complimentary of the applied methodologies and necessary for this body of research, thus, while this research did not utilise action research, it was guided by its principles.

Additionally, concepts from Lewin's (1946) original description of action research, such as planning, reconnaissance and evaluation, were used within the methods.

Lewin (1946) in one of his first academic descriptions of action research noted, "there exists a great amount of good-will, of readiness to face the problem squarely and really to do something about it" (p. 34). He further declared that in the context of social research the following questions be answered: "a) What is the present situation? b) What are the dangers? and most important of all, c) What shall we do?" (Lewin, 1946, p. 34). Thus, the characteristics of action research common to all of its applications are highly applicable to the exploration of tourism as supplemental livelihood response to declining fisheries: a) effecting change to real problems; b) progressing community beliefs through collaborations; c) deeper understanding through reflective processes; and d) perception based outcomes (Kesby, Pain, & Kindon, 2007).

Though action research was not directly applied to this research, its relevance warrants mentioning, as the term action research is commonly misused in the context of international aid and development programmes. McTaggart (1997) noted that, "participatory action research is *not* a 'method' or 'technique' for policy implementation. It does not accept truths created outside that community or truths created by researchers working inside the community who treat the community as an object for research" (p. 40). McTaggart's (1997) description of action researchers as having the ability to, "accept propositions from outside as worthy of testing," and allowing action researchers to "elect to study their own situation from first principles, as it were, to develop their own understandings of what is happening as a guide to action" (p. 40) was used to guide the cases explored by this research.

### *3.3.2 The logic for a case study*

Compared to the vast number of remote fishing villages that are located within the vicinity of existing tourism markets, the number of fishing households engaging in and benefiting from tourism markets in developing nations remain low. The case study method is congruent with my ontological and epistemological views. To explore the potential role of tourism in remote artisanal fishing communities in developing nations this research utilises a collective case study.

Beeton (2005) stressed the role of the case study in furthering tourism research. Flyvbjerg (2006) advocated that context-independent theories within the social sciences are lacking and, thus, the social sciences rely upon the context-dependent knowledge created by case studies. While it is a long standing belief that findings from case studies are limited in transferability, Stake (1978) argues case studies to, “often be the preferred method of research because they may be epistemologically in harmony with the reader’s experience and thus, to that person a natural basis for generalisation” (p. 5). He then went on to note that often the situation “is one which there is a need for generalisation about that particular case or generalisation to a similar case rather than generalisation to a population of cases” (p. 8). Flyvbjerg (2006) furthered the debate that cases are indeed transferable describing the consequence of a critical case, or one that completely dispels existing theory (e.g., the rejection of Aristotle’s view on falling objects with the advent of the vacuum pump), acknowledging the role of a critical case even within the hard sciences. Based on this and other examples founded in the literature, Flyvbjerg (2006) suggested a refinement to the understanding of a case study stating:

One can often generalise on the basis of a single case, and the case study may be central to scientific development via generalisation as supplement or alternative to other methods. But formal generalisation is overvalued as a source of scientific development, whereas ‘the force of example’ is underestimated. (p. 12)

The use of a case study affords the researcher closeness to real-life situations. This exposure, through research, often results in the falsification rather than the verification of preconceived notions (Flyvbjerg, 2006). Though Flyvbjerg (2006) contended that biases do not invalidate the case study, as with any piece of research, it was recommended that I, the researcher, attempted to forfeit personal biases for the benefit of the research (Creswell, 2009; Gray, 2004; Kvale & Brinkmann, 2009). Based on the arguments of Flyvbjerg (2006) and Stake (1978) of the value of the case study to a general discourse, this PhD research used a collective case study approach to produce findings intended to broaden the understanding of potential livelihood shifts in remote fishing communities in the context of a developing nation.

This research incorporated a number of components of case study. Methods including qualitative inquiry and interviews are often used in the case study context (Kvale & Brinkman, 2009, p. 117; Silverman, 2000). These qualitative tools are important to the case study method in that they allow the researcher to “understand the world from the subjects’ point of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations” (Kvale & Brinkman, 2009, p. 1). As Tellis (1997) stated, “this means that the researcher considers not just the voice and perspective of the actors, but also of the relevant groups of actors and the interaction between them. This one aspect is a salient point in the characteristic that case studies possess. They give a voice to the powerless and voiceless” (para. 5).

### **3.4 Semi-structured interviews as methods of inquiry**

Fisherfolk are key persons in coastal research; as permanent coastal residents they have a familiarity with the resource unbeknownst to an outsider (Campredon & Cuq, 2001; Grafton et al., 2006). Fishers have been identified through past research as valuable resources in describing the fisheries and the accompanying processes (Turner et al, 2007; M. Bunce et al., 2009). However, results from past community based coastal resource management (CBCRM) efforts have shown that community participation in development programmes is rarely self-initiated (Junio-Menez, 2001). Junio-Menez (2001) acknowledged that “local communities particularly the small fisherfolk are considered ‘disempowered’ and hence lack the capacity to initiate change themselves” (p. 4).

#### *3.4.1 Semi-structured interviews*

In the developing world, many fishers leave the formal education system early to enter the workforce. Therefore, lower literacy rates tend to be common throughout fishing communities rendering a written survey limiting and even inappropriate. L. Bunce, Townsley, Pomeroy and Pollnac (2000) detailed the importance of semi-structured interviews in social fisheries research. L. Bunce et al. (2000) suggest using semi-structured interviews to generate “in-depth and explanatory, qualitative information on specific issues,” and allow, “an exchange of



information between the facilitator and informant” (p. 96). As with any knowledge exchange, a transfer of knowledge is inevitable (Beeton, 2005). Besides producing qualitative data regarding personal perceptions, information gained from interviews can be used to supplement fisheries health data and has been used to document shifting baselines within a fishery (e.g., M. Bunce et al., 2009). Similarly, Dulvy and Polunin (2004) have used data from fisher interviews to document environmental changes when quantitative data are lacking. Such information becomes especially useful when exploring the effects a development may have on the environment.

#### *3.4.2 Group interviews*

Cole (2004) notes that allowing the participants to determine the composition of interview groups enhances participation in the research. Cole’s (2004) assumption is an important consideration for research in remote locales as the presence of an “outsider” can leave participants with feelings of unease (Minkler, 2004). The proverbial “strength in numbers” may, in the case of a remote fishing community, augment participation. Aside from providing a sense of comfort for participants, the dynamics of a multi-participant group tend to stimulate responses from participants (Gray, 2004; Orbe, 2000) thus, adding to the depth of the data (Thomas, 2004).

Through the application of semi-structured interviews in the form of group interviews and in agreement with the previous literature (e.g., Baticados & Agbayani, 2000; M. Bunce et al., 2009; Campredon & Cuq, 2001; Dulvy & Polunin, 2004; Grafton et al., 2006; Turner et al., 2007), fishers’ perceptions were identified, not only as beneficial for documenting the state of and the potential uses for the marine environment but also for exploring the community perceptions (Kvale & Brinkmann, 2009, L. Bunce et al., 2000) regarding marine tourism, fisheries and the general use of the marine environment.

### 3.4.3 Gaining access

L. Bunce et al. (2008) recommended an introductory observation period that allows for familiarisation with local procedures, customs and language. Additionally, UNFAO (1990) emphasised the importance of meetings with community members to discuss relevant interventions and strategies prior to the start of a project. In the Philippines, it is common for community members to partake in surveys; however, participation in ongoing development projects is generally more passive (Junio-Menez, 2001). In the Philippines, participation in coastal development initiatives is commonly limited to participants being informed of the project through group meetings (Junio-Menez, 2001). Junio-Menez (2001) noted that while some leaders or community representatives will take on a larger participatory role in such projects, the participation of other community members is often more accurately described as spectators at informational meetings. As this research sought to incorporate broad-based participation at a ground level, the strategy for gaining access to the communities is discussed below.

### 3.4.4 Reconnaissance

I partook in an eight-week reconnaissance visit to the Philippines during October - December 2011 to identify potential fishing communities, or fishing *barangays*, for the proposed research. During this time the researcher met with staff from the University of the Philippines Marine Science Institute (UPMSI) to help secure an appropriate research site. The UPMSI Deputy Director, offered both institutional support through access to UPMSI facilities as well as field support through the University of the Philippines and UPMSI's previously established relationships with local fishing communities in Bolinao. Per her recommendation, I visited the municipality of Bolinao, more specifically the *barangay of* Victory, to speak with and meet with members of the community. Following Lewin's (1946) suggestion of incorporating a 'planning' stage within the research, this visit was considered a familiarisation trip.

During the familiarisation trip, I spent five days based at the UPMSI dormitories in Bolinao. Day trips were taken to visit potential research sites on Santiago Island. It was during one of these

visits that a potential research site emerged. In Filipino culture informal meetings coupled with a light snack, known as *merienda*, are common. On October 26, 2011, UPMSI brokered a *merienda* at the Sea Ranch Guardhouse (Figure 3.1), between the President of the People's Organisation and myself, as well as other caretakers involved in the Sea Ranch. All other persons present at the meeting were also residents of Victory.

UPMSI and the local People's Organisation are involved in a community-development project in the waters of Victory caretakers. The project, known as the Sea Ranch, is a grow-out space for a lucrative species of sea cucumber. As part of the arrangement, UPMSI provides the community with brood-stock; volunteer caretakers of the Sea Ranch are responsible for collecting data on the sea cucumbers as well as protecting the area mainly from poaching. All monetary benefits resulting from the sale of the sea cucumbers directly benefits the community members involved in the project.



Figure 3.1: Sea Ranch Guardhouse. The Sea Ranch Guardhouse is staffed 24 hours a day, seven days a week by a rotating volunteer staff.

The meeting allowed me the opportunity to speak directly with persons within the community to gain a deeper understanding of the state of the fisheries and challenges the community is facing (Williams & Cervin, 2004). Familiarising the participants with the research is an important consideration within the Philippines (Baticados & Agbayani, 2000). During the visit, the PO President cited the limited number of visitors the village currently hosts. Learning about the

community-led sea cucumber ranching project continues to be the main purpose of such visits; however, it was stated that the economic benefits from such visitors are negligible and may even come at a financial cost to the already poor community.

I visited Victory a second time during the reconnaissance period in November 2011. The visit was planned to coincide with a learning exchange visit between Lembaga Ilmu Pengetahuan Indonesia (LIPI), a non-departmental research institution belonging to the Indonesian government and members of the sea-ranch project in Victory. In addition to providing an opportunity to observe a first-hand example of the potential “tourist” experience in Victory, this trip afforded the community a second introduction to the research and to me as the researcher. During the afternoon snorkelling activities in the sea ranch, I conducted four pilot interviews. Changes to the instrument resulting from the pilot interviews are discussed in the interview protocol section below.

The described reconnaissance period ended prior to the selection of the second and third research sites. These second and third research sites were chosen following the completion of the research at the primary site in Barangay Victory. The second and third research sites in Barangay Decabobo and Barangay Quezon respectively, were brokered by an American expatriate working in the areas. I was introduced to this broker vis-à-vis another expatriate in Manila who was familiar with the research. Following several detailed discussions with this broker beginning in April 2012, it was determined that the Calamianes Islands offered potential research sites that could serve as comparative cases to Victory. This broker is also the founder of a Busuanga-based NGO dedicated to marine conservation, and is developing a small-scale surfing tourism venture in the area. Again, the selection of the additional research sites was considered pragmatic. Because I was pregnant from December 2011-September 2012, the research field trips to the Calamianes Islands were postponed until January of 2013.

Access to the participants was largely a result of the local brokers associated with the different sites. In the first research site (Barangay Victory), at the suggestion of the local broker who served as Deputy Director of UPMSI, I sought formal approval from the *barangay* captain of

Victory. On February 7, 2012, I attended the *barangay* council meeting in the Victory Town Hall to introduce the research at the council level and ask the *barangay* captain and council for formal approval. Following a five-minute presentation on behalf of the local broker and myself, the council approved the request, without question. As an additional suggested formality by the local broker, I requested assistance from the *barangay* council in identifying appropriate participants. The criteria for selection were persons that were members of full-time fishing households as well those from an established household (e.g., those that have been resident in the *barangay* for over 10 years). Unfortunately, the *barangay* council of Victory failed to provide a list of potential participants. Since the meeting on 7 February 2012, there was no further communication between the council and myself.

The *barangay* captains and councils were not approached for the second and third research sites. Due to previous interactions (and resulting lack of engagement) with the *barangay* captains in these areas, the local broker in these areas did not feel that the formality was necessary. I concurred due to the lack of involvement and interest of the *barangay* council at the primary research site. It should be emphasised that the choice to approach the *barangay* council at Victory was one of formality. Though such a choice would seemingly cause biases within the research protocol, I am confident that the differences in protocol for gaining access between the first, the second and the third research site had negligible influence on the data. It could be argued that such a choice (to not approach the *barangay* captains) may serve to limit future corruption at the local levels. Previous research has documented cases of corruption at the *barangay* levels as local officials attempt to profit from activities within the *barangay* often at the expense of the community (Dalabajan, 2009). This phenomenon had already been experienced by the local broker at the second and third research sites in the form of “invented” taxes/fees (personal conversation, Anonymous, August 28, 2013). It is commonplace for foreigners to be “taxed” for free services or when fees do exist, charged more than double the documented rate (personal observation October 2011 – July 2014).

### 3.5 The setting

#### *3.5.1 Justification of the setting*

The Republic of the Philippines is an archipelago of over 7,100 islands located in the Western Pacific Ocean. The North-eastern coast of the Philippines is bordered by the South China Sea and the South-eastern coast, the Sulu Sea. The country has a population of over 105 million people (Central Intelligence Agency, 2013) with over two thirds of these residing in coastal communities (The World Bank, 2005). The Republic of the Philippines falls within the coral triangle, an ecologically significant region noted for its marine biodiversity. Carpenter and Springer (2005) consider the Philippines to be the “centre of the centre of marine shore fish biodiversity” (p. 467). Although the Republic of the Philippines is home to a remarkable marine environment, the mismanagement and misuse common to the marine resources here are indiscriminate of biodiversity and take no notice of biological significance. The literature suggests that the degradation of fisheries has been and continues to be a rampant issue throughout Philippines for decades (e.g., Baticados, 2004; Baticados & Agbayani, 2000; Fabinyi, 2010; Johnstone, Labrado, Eisma-Osorio, Christie & White, 2010; Oracion et al., 2005; Samonte-Tan, White, Tercero, & Diviva, 2007). The unsustainable management, overuse and misuse of the Philippine marine environment have caused continued degradation of Philippine reef ecosystems and near-shore fisheries (Chou et al., 2002; Cruz-Trinidad, Geronimo & Alino, 2009; Goldoftas, 2006; Gomez, Aliño, Yap & Licuanan, 1994; White, Vogt, & Arin, 2000). The over-exploitation of the fisheries leaves the fisheries and those dependent upon them subject to many threats (Johnstone et al., 2010). As Goldoftas explained the inescapable cycle of overfishing that began decades ago continues today with the constant migration of families seeking better opportunities:

Communities lining the archipelago’s lengthy coastline have been impoverished by the decline of fisheries, which helped support landless, unskilled labourers and their families and also provided most of the protein in their diets. The degradation of the forests and fisheries deepened the poverty in the provinces, which in the 1970s and 1980s helped accelerate the country’s overall economic decline. Fleeing both ecological degradation

and the persistent military conflicts, growing numbers of refugees moved to the cities, where they built squatters' settlements that lined waterways and covered empty lots. They also fled to less-populated rural areas. Along the coasts, migrants became fishermen. (2006, p. 12)

The Republic of the Philippines is considered a developing country by the UN and International Monetary Fund among others, and is a recipient of numerous internationally funded aid and development programmes (e.g., UN Development Programme, UNIFAD, UNFAO, World Food Programme, World Bank, Regional Fisheries Livelihood Programme of South and Southeast Asia (RFLP)). Many of these development programmes aim to diversify the livelihood of those in rural areas, including coastal residents and fisherfolk. However, these programmes generally benefit only a small group (e.g., La Concepcion underwear sewing project funded by the RFLP). For example, the benefits of the project in La Concepcion are limited to select members from a single village. The project provides microfinance and materials to participants along with the training needed to learn basic sewing skills. Overall, the project does little to reduce the pressure on the fisheries. The programme does, however, offer social and economic benefits, such as reducing the participants (primarily females) time spent gambling (RFLP, 2012). Further, the RFLP offers beneficiaries access to microfinance for business ventures, but the programme or its participants have yet to explore tourism as an alternative or supplemental livelihood. Whereas programmes like the RFLP are unlikely to experiment with tourism ventures in the near future, the government of the Philippines is looking to tourism as its saviour:

Looking to the future, the major challenge facing the Central Philippines is to diversify the economy from its reliance on primary products - mainly agriculture. This can only be done by identifying and developing value added internationally traded products/services in agri-business, manufacturing and the service sector. However, the service sector's capacity to constitute a 'driver' of regional economic activity is limited by the fact that much of the output is either non-traded (Government services) or sheltered utilities. Internationally traded services with significant growth potential are few, tourism being the main one. (Department of Tourism, 2009, para. 6)

Tourism in the Philippines, while growing, is currently underexploited. Minimal visa requirements as well as multiple well-serviced international airports and numerous domestic airports make it accessible as a destination. In addition the archipelago boasts diverse topographic features, due to its volcanic origins, and over 36,000 kilometres of coastline. The natural resources provide an abundance of nature-based tour options; however, the organisation and institutionalisation necessary for a strong tourism economy in the Philippines are currently lacking (Porter, 2013). The push and need for economic diversification in coastal areas due to poverty and degraded fisheries, coupled with the government's desire to expand tourism, make exploring tourism as a supplemental or alternative livelihood for fisherfolk in the Philippines compelling.

### *3.5.2 The case study unit of analysis (setting)*

A case study is bounded by a unit of analysis (Tellis, 1997). This research explored a single topic, the viability of marine tourism as a supplemental or alternative livelihood in remote fishing communities, through the investigation of three units of analyses. The selections of the units of analyses were based on Stake's (1995) recommendations of accessibility as well as the presence of prospective informants or brokers and thus, can be considered pragmatic. The research sites within the Philippines were selected because of their physical accessibility and the presence of suitable brokers. The two brokers for the three units are discussed individually as they relate to the specific research sites.

The Philippines archipelago is divided into three main regions from north to south: Luzon, Visayas and Mindanao. The main regions are further divided into administrative divisions, provinces, municipalities and then *barangays*. *Barangays* serve as the "fundamental territorial unit and political building block of Filipino society" and vary in size from 100 to around 2000 persons (Oracion et al., 2005, p. 396). *Barangays* were first documented by the Spaniards in the 16<sup>th</sup> century with the term '*barangay*' being an adaption of the Malay word '*balangay*' meaning boat (Zaide, 1994, p. 62). The *barangay* is headed by a *barangay* captain who in turn is



supported by a *barangay* council. Within the *barangay*, there are smaller *sitios*, or communities, and there may exist active People's Organisations.

Each unit of analysis was bounded by a *barangay*. Each *barangay* was part of a separate municipality. The first inquiry took place in the municipality of Bolinao in Barangay Victory and involved twenty-one participants. The second inquiry took place in the Coron municipality in Barangay Decabobo and involved eight participants. The third inquiry took place in the Busuanga municipality, which is adjacent to Coron, in Barangay Dimipac and involved fourteen participants. Five key informants contributed to the data set. These are the components (temporal and substantive) of the qualitative exploration of the viability of marine tourism as a supplemental livelihood in remote fishing communities in the Philippines.

### *3.5.3 The research sites within the setting: Barangay Victory*

The first study site is located in the Bolinao municipality which lies within the Pangasinan province, part of the Ilocos administration in the Luzon region (see Figure 3.2). The Bolinao municipality hosts a growing domestic tourist market in Luzon, Philippines. Bolinao is easily accessible from the capital city of Manila (pop. 11.85 million) via well-maintained roadways; multiple daily trips are available via public bus transportation. Beginning in 2004, the municipality of Bolinao has focused efforts towards developing community-based tourism that seeks to promote the municipality's "rural life and to explore natural landscapes and the least visited natural areas, hand in hand with excellent hosts, while learning with the traditions and way of life of the local population" (Aguila, 2011, p. 1).



Figure 3.2: Map of Bolinao and Barangay Victory. Victory is located on Santiago Island. The enlarged area is depicted in the small side box as a reference to the location of the study site in relation to the Philippines archipelago.

The Bolinao Tourism Office has completed an inventory of points of interest and tourism-related establishments and services which includes natural resources (e.g., beaches, waterfalls, caves) as well as museums and the University of Philippines Marine Science Institute (UPMSI) research sites and facilities (e.g., giant clams ocean nursery, UPMSI laboratory) (see Figure 3.3). The Kaisaka Organisation, a federation of multiple local People's Organisations, currently offers ad hoc package tours that frequent these points of interest as well as other unlisted marine-based locations, including a seaweed farm and milkfish mariculture facilities. Such tours are advertised by word of mouth via the public and accommodation operators (A. Echarez, personal communication, Oct 26, 2011). The Tourism Office of Bolinao has begun an integrated approach to develop community-based tourism within select *barangays*. At the time of data

collection, a tourism integration framework had not yet been produced and it was unclear at what level the community had participated in the planning and development processes.



Figure 3.3: Bolinao tourism map. This map was available as a handout at various establishments in Bolinao, while a larger colour version was permanently mounted at the town bus station.

Though the marine environment is a highlight of the Bolinao tourist experience, the fisheries of Bolinao have been heavily exploited due to over-fishing and the high-density mariculture of *bangus*, or milkfish (Cruz-Trinidad et al., 2009). The crowding of mariculture pens in Bolinao coastal waters has contributed to eutrophication (San Diego-McGlone, Azanza, Villanoy, & Jacinto, 2008). As a result, poor water quality and excessive nutrients have been linked to mass fish kills in the area.

Barangay Victory is located on Santiago Island, less than a kilometre off the Bolinao coast. The population of Victory is estimated at 1327 people creating around 300 households. There are seven *barangays* on Santiago Island. Santiago Island is accessible by public water taxi, or by small fishing boat known locally as a *banca*, sometimes spelled *bangka* (see Figure 3.4). Motor

vehicles are limited on Santiago Island, and tricycles provide the most common form of intra-island transport. The primary economic activity of Victory residents is fishing. To date, Victory has remained off the 'tourist map', although Victory currently hosts low numbers of sporadic visitors. The majority of these visitors are international exchange-learning visitors organised through UPMSI (e.g., Maria Lourdes San Diego-McGlone, personal communication, November, 8, 2011). The Municipality of Bolinao website promotes tourism on Santiago in full as "ideal for boating and watersports activities" (Municipality of Bolinao, 2011).



Figure 3.4: Picture of the traditional Filipino fishing vessel known locally as bancas.

The isolation of fisherfolk on the island of Santiago (Figure 3.2) may arguably be one of monetary rather than geographical constraint. For a family, one-way travel to the port, across the lagoon and to Bolinao often exceeds a single day's earning. Only commerce or family emergencies dictate such travel. The majority of the community is living in poverty according to government standards. The most common dwelling of participants consists of simple structures (Figure 3.5) made from a mix of wood, woven mats, concrete blocks, and/or corrugated tin. Dwellings are covered with a roof of woven palm fronds or corrugated tin. Dirt-floors are common. Communication is largely done via Short Message Service (SMS) on cell phones, which is affordable (just over two US cents per message); it is common for family members to share a

single cell phone. Electricity is available in Victory; however, not all households have this. Traditionally, the men go out to sea to fish, while the women tend to family needs and participate in side-businesses, known locally as sideline activities, such as gleaning (also referred to as beach seining) or mat weaving.



Figure 3.5: Main entrance of a fisherfolk home. The typical dwelling of fisherfolk in Barangay Victory. Picture has been blurred to protect the identities of the participants

#### *3.5.4 The research sites within the setting: The Calamian Island Group*

The entire Palawan province is considered part of the Luzon Island group, the northern most island group of the Philippines. Palawan is bordered by two seas, the South China Sea to the west and the Sulu Sea to the east (Figure 3.6). The Calamian Islands are an island group within

the Palawan province. Located at the northern part of Palawan, the Calamian Islands are a popular specific tourism destination.

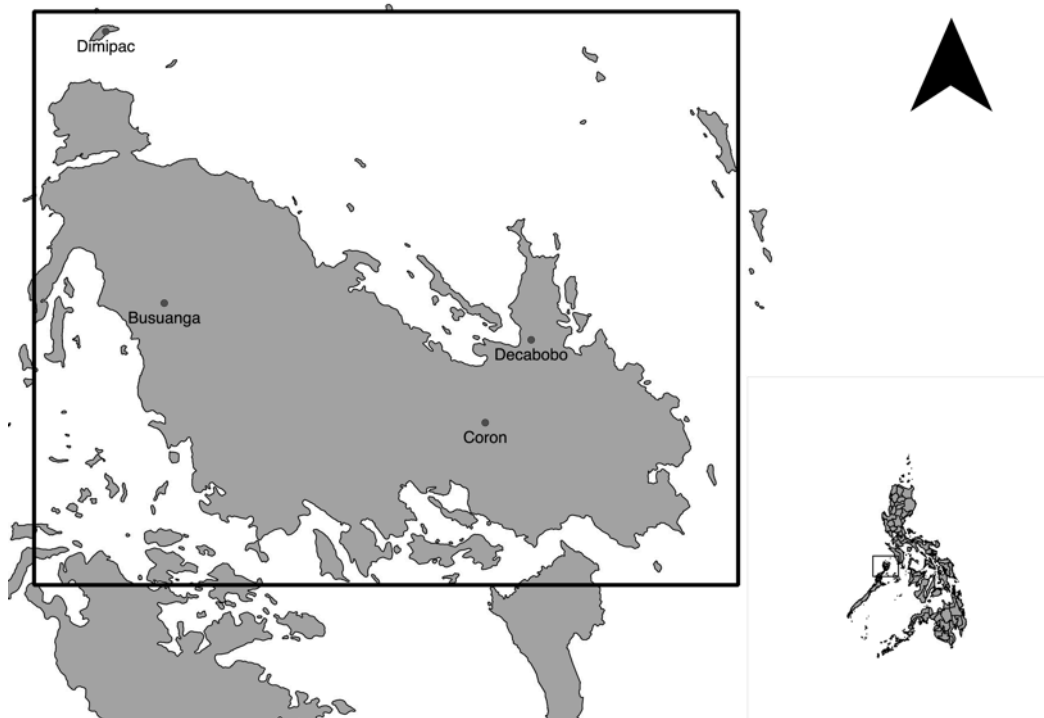


Figure 3.6: The Calamian Islands and Palawan. The Calamianes are depicted by the box and are part of the northern most point of the Palawan (the group of islands jetting southwest from the middle of the Philippine archipelago).

Capistrano (2010) acknowledges that in the Philippines, “indigenous peoples face multiple issues in securing their rights to fish in their coastal area, including lack of tenure and legal recognition of their traditional rights in national constitutions and laws, discrimination and culturally insensitive policies and development projects” (p. 453). The Tagbanua, also spelled Tagbanwa, people are found mainly in the central and northern parts of Palawan; they are thought to be some of the first inhabitants in the Philippines (Zingapan & DeDevera, 1999). Some of the cultural norms of the Tagbanua, such as respect for the watershed, participation in a subsistence fishery, and reliance upon minimal invasive fishing methods, helped sustain the ecological health of Coron Island prior to the mid-20<sup>th</sup> century (Capistrano, 2010). In the 1970s,



however, this quickly changed as the government began imposing taxes on Tagbanua lands. Capistrano (2010) explained, “tax payments were used by the municipal government as a proof of ownership to the land, and since most of the Tagbanua could not afford the annual payment, the lands were auctioned off to tourist resort developers and real estate agents” (p. 457).

### 3.5.5 Coron and Barangay Decabobo

Coron is a municipality located in the Mimaropa region of the Palawan Province, which also includes Coron Island (refer to Figure 3.6). While roadways exist, Coron is still considered a rural area with many unpaved roads. Motorised tricycles (see Figure 3.7) are the main form of transportation. There is a public market and small shops that sell various food items. These small stores are known as sari-sari stores; in Tagalog (the local language dialect), *sari-sari* translates to “variety.” *Sari-sari* stores cater to those on a limited budget, allowing customers to purchase a single unit (e.g., one cigarette) rather than an entire pack. No major supermarkets or shopping centres exist in the municipality.



Figure 3.7: Motorised tricycle. Custom sidecars are attached to mopeds or motorcycles to provide public transportation. Tricycles are often shared by multiple customers.

Barangay Decabobo is located on Busuanga Island and is part of the Coron municipality. The population of Decabobo is estimated at around 1,100 persons. Electricity is available, but off-grid dwellings along the coast are most common with some households using diesel generators. Fisherfolk tend to reside directly on the coast in small semi-permanent structures made mostly of bamboo and woven mats. Cooking is done over open fire.

Decabobo is accessible via rural roadways from Coron town and the airport. Additionally, there is an unmaintained pier offering small vessels (primarily *bancas*) water access. In Decabobo town, there are a number of sari-sari stores. Motor vehicles in Decabobo are limited to a few private vehicles and *jeepneys* (privately-owned bus like vehicles used for public transport). The majority of land transport is by tricycle.

### *3.5.6 Busuanga and Dimipac Island (Barangay Quezon)*

Busuanga is a municipality in the province of Palawan. The Busuanga airport acts as a hub for Coron Island. Busuanga has been selected as a priority area for tourism development; however, the industry still remains in its infancy. Within the Busuanga municipality, there are five established tourism resorts. Access to the resorts in Busuanga require both land and water transfers from the airport. These transfers must be prearranged through the resort, as a standard scheduled ferry service does not exist. Likewise, access to other areas requires prearrangement of water transport. The municipal tourism office website lists island hopping, diving and snorkelling and wildlife ecotourism as the main activities (see <http://www.busuangapalawan.com/>).

Dimipac is a small island about two kilometres in length and less than one kilometre in width that belongs to Barangay Quezon. Dimipac is part of the Busuanga municipality and lies approximately 10 kilometres off its coast. As of mid-2013 there were around 50 families on Dimipac. There is not an official population count on Dimipac Island; however, observations show that the number of families has nearly doubled in the last two years (personal conversation with anonymous, August 28, 2013). Water transportation is available through private hire of a *banca*. *Banca* rental costs around 50 US dollars per day and is inclusive of fuel



charges and crew. Such *bancas* can accommodate a maximum of four to five persons.

Infrastructure on Dimipac is limited. There are no paved roads and no national transmission grid electricity. Some residents use a diesel generator to power light fixtures or televisions. All transportation on and around Dimipac is by foot or boat. Like Decabobo, the common dwellings consist of bamboo shelters with woven mats as walls and woven palm frond roofs (see Figure 3.8). Many of the residents on Dimipac are migrants from other areas of the Philippines and considered squatters, or those who build makeshift houses on land without securing legal rights to do so. Dimipac residents depend on the fisheries for sustenance and many also partake in small-scale agriculture. While the majority of households actively participate in the fisheries, fishing is also supplemented with handouts from larger, commercial vessels that use the near-shore waters (personal conversation with anonymous, April 17, 2013). Enforcement in the area is minimal and the practice of handouts from larger vessels is likely a response to illegal use of the waters by the larger vessels. Although the literature suggests the Tagbanua have a culturally founded respect for the environment (Capistrano, 2010; Zingapan & DeDevera, 1999), there is evidence that many fishers in the area, including those of Tagbanua descent, currently partake in illegal fishing activities. This assumption is made from a review of the literature (e.g., Dalabajan, 2009; Fabinyi, 2007; Fabinyi, 2008) as well as by personal observation of illegal fishing gear in fishing households and dead reef fish washing ashore a likely result of cyanide fishing (personal observation, April 17, 2013).



Figure 3.8: Typical fisherfolk dwelling in Decabobo and Dimipac. Structures are made from natural materials. They lack running water or electricity.

The coastal waters of Dimipac are visited daily by tourists from dive resorts in Busuanga. However, the tourists do not step foot on the island, and thus, do not affect or influence the island's economy. The main purpose of such tours is SCUBA diving and/or dugong viewing. Currently, there is a single, small-scale tourism development in progress on Dimipac. The tourism venture is resultant from a NGO microfinance partnership and a Dimipac resident of Tagbanua descent. The development aims to provide all-inclusive accommodation for surf tourism. The tourism development on Dimipac aims to have a minimal impact on the local environment and near-shore waters through the use of composting toilets, water reclamation and the use of natural materials to build the structures for accommodations.

### **3.6 Data collection**

#### *3.6.1 The participants*

Between 2011 and 2013, this research involved 42 fisherfolk and five key informants for a total of 47 participants. Additionally, there were 10 fisherfolk who contributed to or influenced the

interview sessions and were therefore counted as secondary participants. While the majority of fisherfolk participants were male, there were 11 female participants. Within the fishing households, it is common that the male members partake in vessel-based fishing. Women often take part in the fisheries, but their involvement tends to be limited to shore-based activities such as gleaning (Eder, 2005). Gender preferences were not a consideration of the inquiry, as participation was open to any adult member of a fishing household. Gender representation was simply a result of who was available and willing at the time of the interviews. During the interviews, it was common for other family members and members of the community to observe and in some cases contribute to, or join in on the interview. While this study focused on active fishers within the households, those under the age of 16 were excluded from the study for ethical considerations, although it was common for younger members to partake in fishing activities. The original intent was to limit participation to those ages 20 and above; however, two participants age 16 and 19 joined in a group interview. As they were eager to participate and accompanied by older members of the household and observed by elders of the household, this single exception was made. Of the fisherfolk interviewed, all were born in the Philippines, of Filipino nationality and are therefore citizens of the Philippines.

Out of the five key informants, one was female. Three of the key informants were born in the Philippines and are of Filipino nationality and citizenship. Two of the key informants were born in the United States, and are, therefore, United States citizens. However, one of the United States born key informants is of Filipino descent and carries Filipino citizenship. The key informants were interviewed following the completion of the fisherfolk interviews. This order was not important to the data, but did allow the key informants to emerge as important representatives of the tourism industry from remote locales in the Philippines.

### *3.6.2 Choosing participants*

The interview sessions were designed to document the perceptions of fishing households regarding marine tourism and more specifically identify potential and/or perceived roles of fishing households in a tourism economy. Purposive and snowball sampling were used to

identify and approach members of active fishing households dependent on the fisheries. While purposive sampling may be seen as a form of bias within the data, Barbour (2001) argues that purposive sampling can instead enhance the coverage of the sample and “offers researchers a degree of control rather than being at the mercy of any selection bias inherent in pre-existing groups” (p. 1115-1116). In addition to a hired translator, a local guide, who was either resident or familiar with the area, accompanied the researcher at all research sites. The local guides assisted with sourcing participants and introducing the research. The local brokers were not actively part of the interview sessions. The similarities and the differences between the sampling at the three research sites are discussed in this section.

In Barangay Victory, the Victory People’s Organisation provided a list of fishing households for Barangay Victory. The list included 16 heads of house that fish using a net deployed from a *balsa*. The *balsa* is a bamboo raft lashed together with microfilament line that is used for near-shore fishing; these types of vessels are rarely motorised (Figure 3.9). Members from 9 of the 16 identified households were available for interviews; the other eight were not available on days interviews were conducted.



Figure 3.9: Non-motorised *balsa* raft used by near-shore fisherfolk in Victory. The balsa raft is used by many fisherfolk from Santiago Island for transportation and as a fishing platform.

In Barangay Decabobo and Barangay Quezon, there were no active People's Organisations during the time of data collection. Sampling in these areas was achieved using snowball sampling. The first interview in each area began with a random house visit following shore landing of the transportation vessel. In all three research sites it was common for additional participants to join an existing interview.

### **3.7 Interview protocols**

#### *3.7.1 The research instrument*

When external agents act as facilitators for a participatory project, they introduce biases, and consequently, influence the research outcomes (Junio-Menez, 2001). I strived to minimise biases within the data (Thomas, 2004). In regards to the instrument (semi-structured interviews), this was achieved through: a) recognising the importance of framing in the development of the semi-structured interview questions (Coghlan & Brannick, 2001); and b) by encouraging inquiries and discussions from the participants (Junio-Menez, 2001). These efforts

were further supported with self-reflective journaling (Coghlan & Brannick, 2001). The journal process is discussed as its own section.

In applying Junio-Menez's (2001) suggestion of fostering a dialogue between the researcher and the participants, it was also my responsibility to openly accept inquiry and critique from the community (Orbe, 2000). The importance of this became apparent on multiple occasions. While the majority of participants were willing to engage in the research with little curiosity as to the purpose of the research, other participants demanded explanation beyond the participant information sheet (see Appendix 2). Such participants specifically desired information about the motivations of the researcher, the expected outcomes of the research and the potential benefits of the research. Potential risks of participation in the research were not mentioned by anyone at any time.

The instrument (refer to appendix 7) relied upon exploratory inquiry to gain insight into the thoughts, motivations and reasoning of participant actions (Coghlan & Brannick, 2001). The researcher attempted to ask open-ended questions that explored the perception of the participants regarding marine conservation, environmental changes within the marine environment and fisheries, satisfaction with fishing as a livelihood, tourism as an occupation, the risks and benefits of tourism development, and the opportunities for involvement in tourism. Although the researcher had carried out an extensive literature review on these subjects, the interview questions did not aim to solicit responses in reference to existing theories or hypotheses.

Participant comfort and understanding were important considerations in the design of the interview questions. My prior experience with fishing communities in developing nations allowed me to form questions appropriate for the intended audience. In addition, the questions were checked by Dr. Menez, a Filipino social and natural scientist who is based in the Philippines and experienced in research with local Filipino fishing communities. Special care was given to protect the participants from sharing incriminating information about illegal fishing activities. Additionally, the instrument avoided the use of complicated concepts and technical

jargon. While some questions explored subjects that some of the participants had little knowledge or experience of (e.g., tourism), terms such as “tourism” were explained by using the concept of visitors to ensure participant understanding. Finally, participants who were unable to understand a particular question(s) were not pressured into a response.

Pilot interviews were conducted with four participants to test the appropriateness of the instrument with regards to participant understanding. The local broker for the Barangay Victory research site and Deputy Director for UPMSI, Dr. Menez, was present for and acted as the translator for the pilot interviews. Following the pilot interviews, the researcher and Dr. Menez collectively determined that all questions were well understood by participants and elicited the desired information. Only minor changes were made to the instrument. Place of birth was added during the pilot interviews and included formally in the revised instrument to enhance the understanding of participants’ backgrounds. Other changes involved the improvement of terminology within the instrument, specifically the substitution of “additional occupations” or “part-time work” for the term “side-line” and the inclusion of the term “gleaner” or “gleaning” in reference to the collection of marine organisms from inter-tidal areas, mainly for subsistence purposes.

### *3.7.2 Interview sessions*

All interviews were conducted verbally and audio recorded. Audio records were later transcribed by myself. Filipino is the official national language; however English is the language used for government and educational instruction in Philippines. The level of familiarity with English by Filipinos is thus, related to their level of participation in the formal education systems. The majority of high school graduates in the Philippines are fluent in English. Although Filipino (also termed Tagalog) is the national language, there are hundreds of other languages and dialects spoken throughout the Philippines (Zaide, 1994). Many Filipinos consider their local dialect, rather than Tagalog, their first language. L. Bunce et al. (2000, p. 96) suggest that social science research can benefit from the use of local terminology and languages. To better facilitate communication and participation, I utilised translators during all fisherfolk interviews.

It was intended that, whenever possible, a local translator fluent in the local dialect would be hired. However, this was only possible in Barangay Victory. In Victory, interviews were conducted in Tagalog and the local dialect, Bolinao. In Barangay Decabobo and Barangay Quezon (Dimipac Island) due to their unfamiliarity with research and with foreigners, locals who were fluent in English were hesitant to act as a translator. Consequently, no local translators were engaged. For these locations, translators were flown in from Manila and Cebu respectively. In Decabobo, interviews were conducted in Tagalog. In Dimipac, the interviews were conducted in Tagalog and Bisaya, sometimes called Cebuano, a dialect common to the Central and Southern regions of the Philippines (Visayas and Mindanao).

The structure and procedure for the interviews remained consistent across all three research sites. I asked all questions in English, and then these questions were translated by the translator to the language used for each interview. Participant responses were then immediately translated back into English by the translator. I would then explore these responses further, if needed, with the help of the translator by asking supplementary questions or seeking clarification to ensure I understood the responses from interviewees. Prior to asking interview questions, a short conversation regarding the research process, the research and the researcher was held. Participants were informed that the interviews would be audio recorded and shown the audio recording device. All of the participants seemed comfortable with this. The introductory conversations generally involved me sharing some of my personal history and travels with the participants. In Barangay Victory, I also shared with interviewees that I was pregnant (three months along at the time of data collection). All participants were excited about the news, and in return often shared news about their families. During the interviews in Decabobo and Dimipac, I was accompanied by my infant son, then four months and seven months old respectively. The presence of my son was welcomed by all and was considered an aid in gaining access to both communities and in building rapport and connection with interviewees. The potential influence of this, the specific circumstances of each of the research sites, translators and other issues are addressed in the section, Limitations and measures.



Interviews were planned as individual, face-to-face interviews; however, due to the communal culture of the community and curiosity about the research, my presence and the presence of my infant son (at the latter two sites), it became common at all sites for others to join in and participate during the interview process, thus, creating informal group interviews. This process (others joining in the interview) evolved naturally and it would not have been appropriate to exclude local people who wished to be involved and contribute to the interviews. This phenomenon is not unusual in remote communities and such a scenario is supported by Cole (2004) who suggested that the composition of the discussion groups be left to the decisions of the participants. As a consequence, interview group sizes varied from a single interviewee to a maximum of nine people. In every case, there were other members of the community (e.g., other family members and neighbours) present as observers, listeners and, in some cases active contributors. It was clear that in many cases the adult bystanders influenced interviewee responses. Some interviewees, who were unsure of how to answer a question, or who were confused by a question or seemingly shy, often looked to bystanders for encouragement, input and/or clarification. In most cases the bystanders were female family members. When this occurred (e.g., others contributed to and/or significantly influenced interviewee responses), this was noted in my research journal and this influence is subsequently considered in the results and analysis sections of this thesis.

Following the conclusion of each field day, the interpreter, local guide, and I met to debrief and discuss the interview sessions. When possible, the local broker was included in these meetings. This offered a chance for further clarifications of participant responses, actions and attitudes. Notes from these debriefings were recorded in the research journal.

### *3.7.3 Key informant interviews*

To gain additional insight into the fisherfolk data and add points of reference for inter-subject comparisons, key informant interviews were undertaken with various stakeholders. These informants were identified first by their relationship to the research objects from their respective employment sectors. In general two main sectors were represented, fisheries and

tourism. Within each of these sectors, the criteria were refined to represent more specific stakeholder groups. To represent various perspectives and experiences from the tourism sector, a local and non-local representative were selected. Relevant to fisheries development, the government, international aid agencies, and NGOs were identified as important stakeholders representing the fisheries sector. Specific informants were pragmatically selected based on contacts and networks formed during the course of this research. Informants were approached either in person or through email correspondence.

Key informant interviews were conducted both in person and via Skype. Although not the preferred method, Skype was used to minimise research costs, as the travel costs would have exceeded 200 US dollars per interview. In person interviews took place at a local café and were audio recorded and later transcribed. Likewise, interviews that took place via Skype were audio recorded and later transcribed. Interviews lasted 12 - 50 minutes. The key informant interviews were divided into three sections. The first section addressed the socio-demographics of the key informant. The second section focused on the marine environment including questions about marine management and conservation efforts. The final section explored the subject of tourism as a development strategy for fisherfolk. Questioning involved the key informants' experiences with tourism, including its effects or potential effects on the marine environment, the community and the economy.

#### *3.7.4 In situ observations with key informants*

*In situ* observations were conducted with the tourism projects of both of the key informants representing the tourism sector. While the observations were conducted based on a tourism experience, both informants were made aware of the purpose of the observations in relation to the research. In both cases, the *in situ* observations took place prior to the key informant interviews and, provided an important point of reference for understanding the respective informants' tourism development projects and the basic and intended functions of their tour operations.

### *3.7.5 Research journal notes*

Throughout the course of the research, I wrote field notes in a research journal, including during the interviews. These notes included my thoughts and observations with regard to the data and interviewee behaviours (e.g., an interviewee who realised he was only wearing underwear nearly halfway into the interview). I also noted general observations of the settings.

A research journal is considered an important component of qualitative research (Coghlan & Brannick, 2001; Janesick, 1999; Ortlipp, 2008). Kvale and Brinkmann (2009) stated, “no form of representation, writing or reporting is innocent. All forms are loaded with the researchers’ interests and intentions” (p. 282). Likewise Kouritzin (2002) realised the biases associated with ethnographic observations. She recommended the interpretations, or field notes, created by researcher be analysed through the following course of questions:

How is this written? What narrative and rhetorical strategies have been used? What linguistic choices have been made? What is the effect? How do other people read these field notes? Who is the intended audience? Where is the researcher situated? What is recorded? What is omitted? What is taken for granted? How do the field notes reinforce assumptions? How do the field notes challenge assumptions? What purposes could these field notes serve? (Kouritzin, 2002, p. 133)

In response to this and as recommended by both Coghlan and Brannick (2001) and Janesick (1999), I undertook a continuous self-reflective process throughout the research. A primary goal of this reflective process was for me to become aware and take account of my personal belief systems and to consider their influence in the research (Ortlipp, 2008). In particular, I reflected upon myself as a part of the research, as an influence on the research, and my feelings about the research. Further, I attempted to better understand participant perceptions of realities by comparing my field experiences and observations to understanding my own perceptions reality. Holland (1999) describes this reflexive process as one that defines personal existences and forms the basis for all social units. He states, “it is therefore the process which

needs to be kept at the centre of any method appraising human existence” (p. 481). Thus, reflexivity of this type is considered an essential component of interpretive research (Renganathan, 2009) and the records from my research journal have been revisited many times as I have conducted the data analysis and considered the implications of the study findings.

### *3.7.6 Transcription*

I personally transcribed all the audio-recorded data from all interviews (fisherfolk and key informants). This process allowed me to revisit, reflect and further consider the data and through this process, to be immersed in the data. Words that were unable to be translated *in situ*, were later translated during the transcription process using a Filipino-English Dictionary and using the assistance of translators to ensure that context and nuances of local expressions were understood. Due to the similarity of the responses and for ease of analysis, the transcriptions of fisherfolk interviews were entered into tables in Microsoft Excel. Key informant interviews were transcribed and entered into text form in Microsoft Word. In total, 42 fisherfolk participated in interviews and nine influential female bystanders contributed to 21 separate interview sessions. Each of these 21 sessions was transcribed. A total of five key informant interviews were conducted and each of these were transcribed in their entirety.

### **3.8 Ethical considerations**

Kvale and Brinkmann (2001) call for pragmatism when developing ethical guidelines. They suggest that “morally responsible research is more than abstract ethical knowledge and cognitive choices; it involves the moral integrity of the researcher, his or her sensitivity and commitment to moral issues and actions” (p. 74). Ethical behaviour is important when undertaking social research. This situation is heightened when researching vulnerable groups. The participants in this research have little exposure to the world outside of their communities and may, therefore, be considered socially vulnerable. Further, small-island economies are both volatile and vulnerable due to an often-limited export base, isolation and environmental fragility (Chowdhury, 2009). Remote fishing communities in the Philippines may be considered vulnerable groups due to low-income levels, lack of exposure to outsiders and vulnerability to

poverty. Previous tourism integration efforts have tended to prioritise tourists' needs over the desires of the local host communities (C3-Comores, 2007). My approach to this research rejects the contention that tourism research should focus on the tourist (Ryan, 2005). Rather, my view and approach has been to study tourism as an alternative livelihood from the perspectives of the potential host communities. The following sections address specific ethical concerns associated with this research.

### *3.8.1 Harm*

Harm is often thought of as physical danger; however, psychological harm is a significant risk of research in the social sciences (Harrosh, 2012). Disappointment in the research outcome or lack thereof, feelings of unease and feelings of obligation to participate are each important considerations. Baticados and Agbayani (2000) found research in Filipino communities to be hindered by a lack of understanding of the concept of research as well as failure to understand a realistic timeline regarding potential benefits and research outcomes. To minimise such risks to the community, I took three main steps. Firstly, I identified myself as a student and disclosed (with the assistance of a translator) the reasons for conducting the research and answered any questions or concerns raised by participants including those who joined the interviews and those who approached me while I was in the community. Secondly, a component of the semi-structured interview with fisherfolk addressed illegal fishing. Knowledge of such occurrences not only potentially puts the researcher at risk, but also the fisherfolk. If such information was to be disclosed during the research by an interviewee, this person (or persons) could be viewed negatively by the community and face repercussions. To minimise this risk I used extreme caution when addressing this topic. Questions were structured to record only the general occurrence and motivation of such actions. I did not ask for specific descriptions, names, and locations or for the interviewees' personal involvement in such activities. Thirdly, anonymity was prioritised. While it was necessary to obtain participant names for purposes of consent, use of names in the data set of the fisherfolk was not necessary. Participant names were removed from the transcriptions and participants were instead assigned a number. Participants in this data set are only identified by gender and age. In some cases, gender was associated with

responses; however, in such cases age was omitted. Anonymity of key informants was addressed separately. As the key informants were representative of various stakeholders, they provided industry specific responses. Therefore, identification of the industry of which they were associated with was necessary. To protect the anonymity of key informants all were given an acronym.

### *3.8.2 Freedom*

Interviewees were asked to voluntarily participate in the research. As a result of the snowball and purposive sampling, potential interviewees were often surprised at the presence of a foreigner at their residence. Great care was taken to explain the research and communicate that participation was in no way mandatory and that there were no benefits associated with participation, other than being able to share knowledge, thus, contributing to the research. Likewise, potential interviewees were assured that there were no consequences associated with a declination to participate. In addition, the instrument was adapted as necessary with the participants' comfort in mind. Whereas the interviews with fisherfolk were originally designed as individual interviews, it quickly became apparent that members of the fishing communities were more comfortable in a group setting. Consequently, the venue for interviews was adapted as necessary. In most cases, the interviews were conducted within an interviewee's residence or in a nearby common space.

### *3.8.3 Informed consent*

When working with a vulnerable group, the importance of the informed consent is crucial. As noted by Baticados and Agbayani (2000), fisherfolk are not necessarily familiar with protocols associated with scientific research. To avoid confusion and feelings of obligation, great attention was given to providing participants with sufficient information. While participants were offered the Participant Information Sheet (refer to Appendix 2), the same information was also disseminated verbally to all participants. It was emphasised that participation was in no way mandatory and further that participants had the option to opt out of any question or withdraw at anytime. While written consent is considered optimal by ethics committees,

Liamputtong (2008) explains the challenges of signing a consent form, when the content is not well understood. I used my judgment to determine when a verbal consent was appropriate. Written or verbal consent was obtained from all participants.

#### *3.8.4 AUT ethical approval*

Prior to commencing this study, a formal application was submitted to the Auckland University of Technology Ethics Committee (AUTEC) for review. AUTEC is an institutional ethics committee, which is accredited by the Health Research Council of New Zealand. In seeking approval, I reflected on a number of issues with regards to working with communities with little exposure to foreigners and unfamiliarity with Western ways of thinking. Care was given to protect the participants as well as myself from sensitive subjects such as illegal activities within the fisheries. Approval was granted by AUTEC on the 7<sup>th</sup> of October 2011, AUTEC reference number 11/241 (see Appendix 1). The AUTEC application included consent forms for participants (refer to Appendix 3), translators (refer to Appendix 4), and research assistants (refer to Appendix 5).

### **3.9 Data analysis methods**

#### *3.9.1 Triangulation of the data*

The term triangulation implies that three separate instruments or approaches are used to generate data and these are used to improve the trustworthiness of data when exploring specific research aims or questions (Denzin, 1970). For this research, triangulation was repetitively used throughout the analysis to strengthen the integrity of the data. As an example, the inter-data comparisons regarding use of the resource have been visually depicted in Figure 3.10.

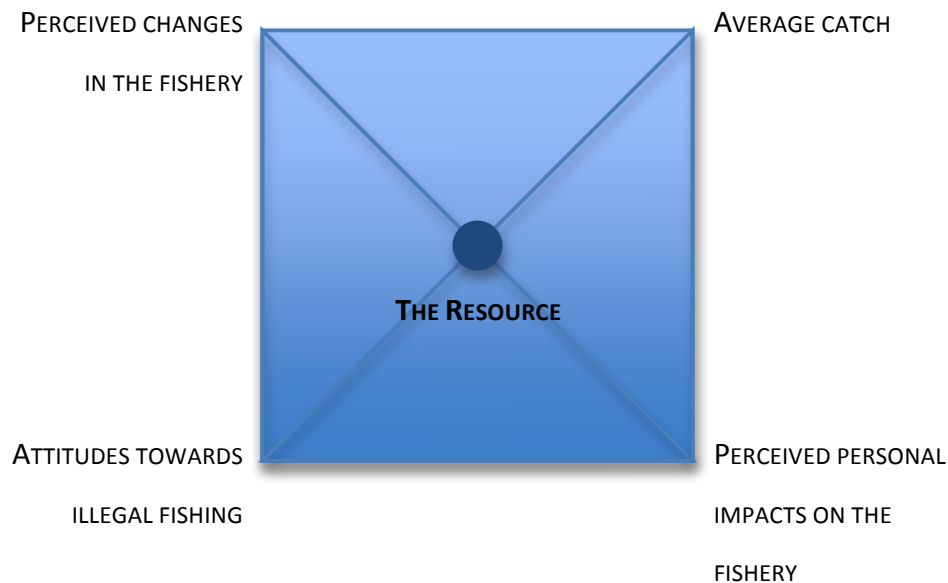


Figure 3.10: Triangulation of the resource data. The point of comparison, in this case, the resource has been represented by the pyramid's apex.

In Figure 3.10, the base of the pyramid serves to “support” the findings by using previous literature as a secondary source and as a foundation for the data, thus, improving the trustworthiness of the data set. This is supported by L. Bunce et al. (2000), who recommended that previous literature be used as a secondary source to provide comparisons from findings resulting from interviews with fisherfolk.

### *3.9.2 Coding and thematic analysis*

Transcription records from the fisherfolk interviews were used during the thematic analysis. Key informant interview data were analysed using the same method, and compared and contrasted with the fisherfolk data. According to Boyatzis (1998), “thematic analysis enables scholars, observers, or practitioners to use a wide variety of types of information in a systematic manner that increases their accuracy or sensitivity in understanding and interpreting observations about people, events, situations, and organisations” (p. 5). Thematic analysis is dependent upon a coding system in which the data are subdivided and categorised (Bell, 2005; Fereday & Muir-Cochrane, 2006; Miles & Huberman, 1994). The coding system allows the data



to be organised into manageable “chunks” that can be retrieved and revisited as they relate to a particular theme. By coding the data, the value is placed on the meaning of the words rather than the words themselves. Data sets were manually coded and categorised following the conventions described Braun and Clarke (2006). Although I had previously reviewed relevant literature, sought advice from local brokers and had conducted pilot tests while developing the study (including interview questions), some of the findings were unexpected and not related to the research objectives or interview questions. As a consequence, a mix of theory-driven and data-driven coding was used in developing themes and sub-themes to analyse and help understand the data (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). Once categorised, the pieces of data or statements were re-interpreted and re-contextualised “within broader frames of reference” (Kvale & Brinkmann, 2009, p. 207).

The majority of the data gathered concerning perceptions of livelihoods, changes in the fisheries and the effects of tourism on fisheries during the semi-structured interviews was qualitative in nature, thus, suiting itself to a thematic analysis. Data regarding types of fishing, methods used, occurrence of destructive fishing practices, understanding of basic marine ecosystem functions, and awareness of marine management legislation was, however, quantifiable. Additionally, secondary quantitative data (e.g., tourism arrivals) were gathered and used to support the data as recommended by L. Bunce et al. (2000), thus, adding to the data set. The use of thematic analysis as an analytic method of inquiry created a bridge between the qualitative and quantitative data. As Boyatzis (1998) notes, “thematic analysis allows the interpretive social scientist’s social construction of meaning to be articulated or packaged in such a way (with reliability as consistency of judgment), that description of social ‘facts’ or observations seem to emerge” (p. 145).

### *3.9.3 Limitations and measures*

Any body of research is subject to limitations and biases (Bell, 2005). Case study research is often a specific recipient of this critique (Flyvbjerg, 2006). Flyvbjerg (2006) addressed this ‘fault’ of case studies, noting that a review of the literature shows evidence that the case study lends

itself towards falsification rather than verification. This section first addresses some of the observable temporal and spatial biases that arose during the research, and second, it addresses some of the less apparent limitations associated with subjectivity within the inquiry. In each scenario, attention is given to the measures taken to minimise the impact to the trustworthiness of the research.

#### *3.9.4 Temporal and spatial biases*

To remove temporal biases, data collection would have to occur simultaneously. In the case of a single researcher, this is an impossible feat. In addition to small time gaps between interviews and research sites, I took a formal leave of absence from the university and PhD study in response to my pregnancy. As a result there was an 11-month gap in data collection between the first and second research sites. Further, I was newly pregnant during data collection at the first site (Barangay Victory) and with an infant child at the second and third sites (Barangay Decabobo and Dimipac Island). Children are regarded in high esteem within Filipino culture. It is common for strangers to ask about one's marital state and one's family. During the reconnaissance period (prior to conceiving), I was often asked by strangers (e.g., taxi drivers) why I was without children. Similarly, interview participants at the first research site often questioned me about my marital status and the number of children I had. This openness about family status and children is common throughout the Philippines (Romana-Cruz, 1997). During the data collection at Barangay Victory, I chose to be open about my pregnancy although this was not yet physically apparent. More commonly than not in Filipino culture, children immediately follow marriage. I felt that my pregnancy was an important factor that helped me connect with the Victory people. My marital status and pregnancy contributed to the comfort of the participants, their trust in me as a person and their relationship with me.

I returned to field research four months after the birth of my son. Due to the remoteness of the second and third field sites, I felt it necessary to bring my son along (I was still breast-feeding him at the time and did not want extended separation time from my son). The presence of my son aided me in gaining access to the communities in both Decabobo and Dimipac. While

tourism is common in nearby areas, foreigners in Decabobo and Dimipac are a rarity as there is little reason to visit these remote locales. My son stayed in a front-of-body carrier (see Figure 3.11) for all but one of the interviews, (during which he ‘played’ with a then 11-month-old child of a participant on Dimipac Island). While the presence of my son may have caused minor distractions during the interviews, these were all seemingly welcome as all participants were smiling and eager to learn more about the baby (e.g., age, place of birth).



Figure 3.11: Front-of-body child carrier. My infant son “rode” in the carry for the majority of the data collection in Decabobo and Dimipac.

Such a large temporal separation in the data allows for other factors to influence the data (Podsakoff, MacKenzie, & Podsakoff, 2012). In the case of fisheries, environmental factors would be seemingly the most influential. During the leave, there were no major environmental events (e.g., red tides, fish kills, coral bleaching events) that affected the second and third research sites during my leave of absence. Throughout this leave, I resided in the Philippines. The chance to remain within the country allowed me an opportunity to gain additional familiarity with the culture and to make ethnographic observations (Kouritzin, 2002; Liamputtong, 2008). During this leave, I continued to maintain my research journal as well as

revisiting and reflecting on the primary data collected from the first study site (Barangay Victory).

Although all three research sites were in the Luzon region of the Philippines, differences between each site resulted in small, but notable differences in the way the research was conducted. One issue potentially contributing to spatial biases were the differences among the translators and field assistants. In Barangay Victory, a local translator was sourced through UPMSI contacts. The translator was a 24 year-old university graduate with a Bachelor of Science in marine biology. At first it was thought that the educational background of the translator would aid in the interviews; however, the translator was unfamiliar with common English terminology relating to fisheries. This was not deemed to have affected the data, as in cases where the term was not understood I took notes and sought later clarification.

The benefit of sourcing a local translator was fluency in the local dialect. Unfortunately local translators were unable to be sourced at the second and third site. As a result of the geographic isolation, fluency in English was less common and potential translators were hesitant to partake in the research (personal conversation with anonymous, January 14, 2013). At the second research site, the site broker sourced a translator from Mariveles (a city located in Luzon across Manila Bay). She was a 26-year old school teacher. Like the first translator, she was unfamiliar with many fishing and fisheries terms. All interviews were conducted in Tagalog. The participants at the second site all expressed fluency in Tagalog thus, minimising confusion.

The researcher sourced the translator for the third site. The third translator was a previous acquaintance of the researcher and employed in the fisheries sector in the Philippines. She was flown in from Cebu City and was 27 years old at the time of data collection. The third translator was by far, the most able of the three. She, at the direction of the researcher, was able to probe further during the interviews confirming participant understanding and clarity of the responses. The majority of the interviews at the third site were conducted in Bisayan, the translator's local dialect. She switched from Tagalog to Bisaya when she realised that many of the participants were migrants and spoke Bisayan as their first language. Despite these differences amongst the

translators used, when examining the data, I consider they had little material effect, as participant responses were nearly identical across the three sites.

A second issue that creates obvious potential bias between the research sites is the number of participants at each site. Interviewee numbers varied between sites being  $n = 21$ ,  $n = 7$  and  $n = 14$  at the first, second and third sites respectively. Although Decabobo and Dimipac Island (the second and third research sites) belong to separate municipalities, they are similar in location, culture and demographics. However, I chose to separate results from the second and third sites for comparative purposes. This choice allowed me to explore additional factors, for example, remoteness that may have affected participant responses.

As the study was qualitative in nature, the goal for each of the samples was to achieve saturation in the data (Morse, 1995; Guest, Bunce, & Johnson, 2006). Morse (1995) emphasises, “the *quantity* of data in a category is not theoretically important to the process of saturation. Richness of data is derived from detailed description, not the number of times something is stated” (p. 148). Guest, Bunce and Johnson (2006) suggest that interview structure, interview content and participant homogeneity are influencing factors in achieving saturation of a sample. They stress the importance of interview structure noting that without such structure, “one could never achieve data saturation: it would be a moving target, as new responses are given to newly introduced questions” (p. 75). Guest et al. (2006) suggest that distribution of knowledge and experience is inversely related to the number of participants required. For example, a widely distributed experience such as participation in a remote fishery would require fewer participants than a more unique experience (e.g., a fisherfolk who moved or changed industries). The third factor of Guest et al. (2006), sample homogeneity calls for “a certain degree of participant homogeneity because in purposive samples, participants are, by definition, chosen according to some common criteria” (p. 76).

Throughout this inquiry, the interview protocol was highly structured, there was wide distribution of knowledge and experiences of the participants but there was homogeneity of responses within each site and within the broad themes across all three study sites. Therefore

saturation was achieved at all three research sites and within the whole sample. I conclude that the data was minimally influenced by the factors affecting saturation as suggested by Guest et al. (2006). In addition, I consider that the variance in sample size did not have had a significant effect on the data, because saturation was achieved within each sample. In addition the themes emerging from the data were similar or consistent across the three sites.

### *3.9.5 Objectivity*

Kvale and Brinkmann (2009) note the ambiguity of the term objectivity as it relates to interview knowledge. They “differentiate among the uses of objectivity: as freedom from bias, as reflexivity about presuppositions, as intersubjective consensus, as adequacy to the object, and as the object’s ability to object” (p. 242). As their views of objectivity specifically relate to interviews as a method, a similar dissection is offered in this section in an attempt to improve trustworthiness of the interview method by revealing its limitations and potential biases.

#### *Freedom from biases*

There are important limitations of research by an “outsider” and it is important to consider these. Kvale and Brinkman (2009) state that objectivity resulting from freedom from biases relies upon data that is “undistorted by personal bias and prejudice” (p. 242). As a Caucasian woman, who has had continual access to well developed infrastructure and social services, including health services and education, a true understanding of lives of those in the developing world is limited by my background. This is summarised by Minkler (2004) who notes, “none of us can truly become ‘competent’ in another’s culture, we can approach cross cultural situations with a humble attitude characterised by reflection on our own biases and sources of invisible privilege, an openness to the culture and reality of others, and a willingness to listen and continually learn” (p. 691). Although I have visited, as well as lived and worked in a number of developing nations, it is not possible for me to relate on an experiential level to the lives of members of remote fishing communities such as those who were participants in this research. Instead, I relied on methods to bring me closer to the realities of the participants. The chosen methods and approaches required that I listened to participant responses and that I attempted

to place those responses within a reasonable reality based on my personal observations, with comparisons to my own, as well as, others' actions and motivations and to consider how the findings relate to the previous literature. As Kouritzin (2002) acknowledges, even field notes themselves are far from sterile. She goes on to state, "only continuous re-examination and reflection can lead to recognition of prejudices" (p. 133). As per the suggestion of Kouritzin, I continually reflected upon the components of the inquiry as both individual cases and as they related to the project as a whole in attempt to improve the trustworthiness of the data.

### *Objective reflexivity*

Possibly the greatest limitation of this study is the barrier of a cross-cultural analysis. In essence the research attempted to address a global issue (declining fisheries) at a local level (dependence on a declining resource). The realities of the audiences associated with this project span an entire spectrum, and are therefore, incomparable. Gadamer (1975) stated, "all understanding inevitably involves some prejudice" (p. 272). While a prejudice or bias is often associated with an unfounded judgement, Gadamer (1975) explains, "the only thing that gives a judgement dignity is its having a basis, a methodological justification (and not that it may actually be correct)" (p. 273). Throughout the course of the research, my prejudice was apparent on multiple occasions I attempted to justify the actions and motivations of participants using my own vocabulary. For example, I realised my primary labels for my field observations were often limited by Western concepts (e.g., complacency, laziness, lack of motivation). My self-reflection and journaling (Coghlan & Brannick, 2001) were used to address this limitation. This self-reflective process greatly affected the research. In the end, my ability to set aside such preconceived ideas allowed truer realities of the participants to emerge from the data.

Western judgements are often inappropriate descriptors and non-transferable to non-Western places (Albion, 1999; also refer to Appendix 10). Kvale and Brinkmann (2009) suggest that "the researcher should gain insight into these unavoidable prejudices and write about them

whenever it seems called for in relations to the research project” (p. 242). I attempted to do this by referring to previous literature and using journal entries to support the data.

### *Intersubjectivity*

Kvale and Brinkmann (2009) divide intersubjectivity into arithmetic intersubjectivity or the statistical reliability, and dialogical intersubjectivity, noting, “the interview is a conversation and a negotiation of meaning between the researcher and his or her subjects” (p. 243). Arithmetic subjectivity was achieved in this inquiry through thematic coding. The responses from the fisherfolk participants were easily coded due to the similarity in responses throughout the research sites. In the case of this study, it was the few responses that varied from the norm that required closer examination. Such exploration of variances within the data was achieved through discussions with colleagues, brokers and others familiar with the inquiry, thus, allowing me to achieve a degree of concurrence (Kvale & Brinkmann, 2009).

Cultural barriers as well as a difference in language affected the dialogical intersubjectivity of this project. To gain a better understanding of the data as it emerged, I requested all participant responses to be immediately translated. In doing so, I was able to address any areas of confusion and this afforded me the ability to expand on topics as necessary. The leave of absence from the project between the first and second research site provided me an opportunity to revisit and reflect upon the primary data. It was during this break that I was able to better understand the underlying issues and challenges associated with the participants’ seemingly perceived positive responses.

### *Adequacy to the object*

Adequacy to the object in interviews refers to the qualitative and fluid nature of the interview conversation (Kvale & Brinkmann, 2009). This inquiry relied upon letting the participants discuss aspects of their lives relating to fisheries and diversification of livelihoods. In doing so, I was able to capture useful knowledge. Being aware of biases and personal reflexivity were key in being adequate to the object. The methodologies (phenomenology and pragmatism) used in



this research were specifically chosen to minimise interference with the object (interview knowledge).

#### *The object's ability to object*

Surprises in the data often prove useful. Kvale and Brinkmann (2009) suggest that the objects that challenge the researcher's preconceived ideas are the ones of most value. They describe this phenomenon as a beneficial objectivity within interview data. This objection of the object is supported similar to Flyvbjerg's (2006) theory of falsification arising from case study research. Objections within the knowledge were an important part of this research. In addition to the common occurrence of cultural nuances (e.g., a yes that means a no), participant responses often opposed the previous literature (e.g., stated willingness to exit the fishery). These idiosyncrasies were addressed by coupling field notes and personal observations of participant responses.

#### *3.9.6 Trustworthiness of the interview protocol*

The interview is bound by a relationship of power based on the interviewer's inquisition. While this relationship can motivate a participant who feels that his or her expression will be of benefit to the greater good, a participant may lack motivation when subjects of the inquiry are not of interest to the participant (Podsakoff et al., 2012). Podsakoff et al. (2012) explain that "the more serious the social consequences of a particular response, the stronger a respondent's desire to provide a socially acceptable response is likely to be" (p. 561). They additionally note that the content of the inquiry must be in line with the capabilities of the participants.

The semi-structured interviews used in this inquiry were designed around the ability of the participants. Specific concepts that would have likely been abstract to the participants (e.g., climate change, non-point source pollution, maximum sustainable yield) were not addressed in the semi-structured interviews. Instead broader topics (e.g., issues that affect the marine environment/fisheries catch) and shifting baselines based on personal observations (e.g., changes in catch over time) were used. The content level of the interviews was tested and

deemed appropriate during the pilot interviews. Part of the inquiry involved assessing participant understanding regarding tourism. In cases where the participant was entirely unfamiliar with the word and concept, further questioning regarding tourism was avoided. Although avoidance of the subject reduced the length of the interviews, I felt that pushing the issue would not validate the data. Soliciting a response that was beyond the participants' capabilities would have resulted in what Podsakoff et al. (2012) describe as "satisficing," a phenomena that contributes to method bias.

While measures were taken to ensure participant comprehension, I do not believe that the interview protocol process was without bias. Due to the cultural gap and the rarity of visitors, it is unlikely that the participants were entirely comfortable or relaxed with the inquiry. The local guide assisted with fostering participant confidence in the research. Liangputtong (2008) states that in cross-cultural research, that it is "imperative to have a team that includes members of the local communities" (p. 6). On multiple occasions I observed expressions which I interpreted as subtle signs of anxiety among the participants (e.g., foot wiggling, nervous laughter, looking to another participant for affirmation). Upon reflection and debriefing with the research team at each site (local guide, local broker and site translators), I felt that these behaviours were simply a result of the presence of a foreign visitor rather than a symptom of a more serious issue such as fear of exploitation or mistrust (Liangputtong, 2008).

### *3.9.7 Coding and thematic analysis*

Miles and Huberman (1994) explain that "codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study" (p. 56). A researcher's preconceived ideas about potential groups or codes can lead to significant biases within the data (Bell, 2005; Kvale & Brinkmann, 2009). Steps were taken to ensure potential biases (explained above) were addressed prior to the collection of the data to avoid guiding the interview towards presupposed responses. The meaning interpretation required by the coded data provided an additional chance for reflection and an opportunity to explore potential biases. Thus, the critiques associated with coding and thematic analysis were not deemed to

have had an effect on the trustworthiness of the data. Additionally, data-driven coding and meaning interpretation (Kvale & Brinkmann, 2009) are fundamentally supported by the nature of interpretivism and phenomenology (Fereday & Muir-Cochrane, 2006).

While there is often a rigor associated with the use of electronic coding, Basit (2010) acknowledged, “the user must still create the categories, do segmenting and coding, and decide what to retrieve and collate.” (p. 145). In a comparison of a manually coded and electronically coded study, Basit (2010) emphasised the benefits of electronic coding, primarily in tagging and retrieving the data. Welsch (2002) added that when retrieving quantitative data from the set (e.g., number of participants who identify as a fisher), human error is ruled out. However, electronic retrieval can be limited by the terms used for a retrieval search (Welsch, 2002). Due to the size of the data set and the few variances in participant responses gathered in this inquiry, retrieval of the data was not a concern and I decided that manual coding was sufficient. Therefore, my manual coding of the data was considered appropriate for this body of research and deemed to have had a negligible effect on the trustworthiness of the data. Instead, the tedious effort associated with manual coding and retrieving of the data contributed to the quality of the analysis (Welsch, 2002). However, to validate this assumption I relied upon external peer reviewers, who were academically qualified, familiar with the data, thematic analysis or both, to ensure the codes and assigned themes were interpreted in similar ways. One reviewer holds a M.Sc. in aquaculture and has three years working experience in the fisheries sector of the Philippines. The other reviewer holds a Ph.D. in fisheries and has over two decades of working experience in social and biological sciences in the Philippines. These reviews took through both verbal consultations and via email correspondence. In all cases, reviewers were presented with the participant responses along side the potential interpreted themes. These checks confirmed my interpretations of general themes and in some cases revealed additional subthemes within the data.

### **3.10 Summary**

This chapter has explained the research design and provided a rationale for the qualitative comparative case studies approach I used to explore the viability of tourism as a supplemental livelihood in remote fishing communities in the Philippines. The literature has yet to thoroughly explore the understanding of and perceptions surrounding tourism as a supplemental livelihood in remote fishing communities in the developing world. Therefore, this inquiry relied upon inductive qualitative methods, including semi-structured interviews to collect the data. The purpose of this chapter was to provide a detailed description of the research sites and the research approach as well as an outline of the research steps undertaken. The information provided in this chapter will allow the reader a greater understanding of the following chapters regarding the findings and discussions.

## **Chapter 4: Findings and Analysis**

### **4.1 Introduction**

This chapter presents the findings and results synthesised from the interview data from the three units of analysis of the comparative case study. Emergent themes are drawn from over 23 hours of interview recordings, the resulting transcriptions, as well as from the field and research journal notes. Excerpts of raw data are provided in conjunction with the results from the thematic analysis to best address the research questions. This chapter seeks to examine the data and findings to answer the four main research questions.

The findings presented in this chapter are directly related to the main goal of this study, determining the viability of marine tourism as an alternative or supplemental livelihood for remote fisherfolk. Since this study involved three cases, it was characterised as a comparative case study. Therefore, the findings are presented both individually, as they relate to each particular unit of analysis, and also collectively as part of a comparative case analysis.

The findings from the participant interviews (fisherfolk and key informants) are conveyed in this section. Thus, the chapter has been divided into two main sections based on these participant groups. In each section, findings are presented in the form of tables and graphs. Additionally, narratives are offered (both specific and representative) as supporting data. Further, the findings have been organised in relation to the four main research questions each complete with a synopsis of the findings. The research questions have been described in detail and supported individually with examples of participant narratives.

In some cases, additional data from the fisherfolk interview sessions that were considered unexpected findings and which became contributing elements to the discussion are presented in this section. To draw the data together, summary diagrams based on the data analyses are presented. This allows the reader a better understanding of the key themes that emerged from data. Thus, the findings provided and organised in this chapter serve as the foundation for addressing the research questions.

## **4.2 The participants**

Data for this study were collected from a total of 42 fisherfolk and five key informants. The participants are presented in Table 4.1. To fulfil the requirements of the AUT Research Ethics Committee, each fisherfolk was assigned a number. As some of the interview sessions were conducted as group interviews, the structure and group size of the interviews varied. Interview sessions were assigned a letter as denoted in 'participant group' in Table 4.1. Additionally, bystanders who contributed to, or significantly influenced the participant responses are indicated as associated with a participant and identified by gender in parentheses. Influential variables pertinent to the discussion, such as place of birth, place of residence, languages spoken (evidence of indigenous culture and migrational movements of fisherfolk) gender and age are provided in this section.

Table 4.1: Fisherfolk Information

Participant number	Participant group	Gender	Age	Place of residence  ( <i>Barangay</i> , Province)	Place of birth  ( <i>Barangay</i> , Province)	Languages spoken  (Mother tongue in bold)
1	A	F	40	Victory, Pangasinan	Santa Cruz, Laguna	<b>Tagalog</b> , Bolinao, English
2	B	M	29	Victory, Pangasinan	Leyte, Visayas	<b>Tagalog</b> , Visayas
3	C	F	41	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , English, Ilocano, Bolinao
4	C	F	24	Victory, Pangasinan	Manila, Manila	<b>Tagalog</b> , English, Ilocano, Bolinao
5	D	M	31	Victory, Pangasinan	Victory, Pangasinan	<b>Filipino</b> , Bolinao, some English
6	D	M	29	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Bolinao, Ilocano
7	E	M (+F)	64	Victory, Pangasinan	Catbalogan, Samar	<b>Bisaya</b> , Tagalog, some Bolinao
8	F	M (+F)	42	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Ilocano, Bolinao
9	F	M	35	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Ilocano, Bolinao
10	G	M	35	Victory, Pangasinan	Santiago, Pangasinan	<b>Tagalog</b> , Ilocano, Bolinao
11	G	M	23	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Ilocano, Bolinao
12	G	M	31	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Ilocano, Bolinao
13	H	M	54	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Bolinao, some English
14	I	M	36	Victory, Pangasinan	Victory, Pangasinan	<b>Bolinao</b> , Ilocano, Tagalog, some English
15	J	M	49	Victory, Pangasinan	Victory, Pangasinan	<b>Ilocano</b> , Tagalog, some English
16	K	F	31	Victory, Pangasinan	Illocos Sur	<b>Tagalog</b> , Ilocano, some English
17	L	M (+F)	61	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , Bolinao
18	L	M	50	Victory, Pangasinan	Victory, Pangasinan	<b>Tagalog</b> , English, Ilocano, Bolinao
19	L	M	33	Victory, Pangasinan	Victory, Pangasinan	<b>Bolinao</b> , Tagalog
20	M	F	28	Victory, Pangasinan	Victory, Pangasinan	<b>Bolinao</b> , Tagalog, some English
21	N	F	26	Victory, Pangasinan	Victory, Pangasinan	<b>Bolinao</b> , Tagalog
22	O	M (+M)	68	Decabobo, Palawan	Malawig, Palawan	<b>Tagbanua</b> , Tagalog
23	P	F	33	Decabobo,	Palawan	<b>Tagbanua</b> , Tagalog

24	P	M (+F)	54	Palawan Decabobo, Palawan	Palawan	<b>Tagbanua</b> , Tagalog
25	P	F	44	Decabobo, Palawan	Palawan	<b>Tagbanua</b> , Tagalog
26	Q	M (+F)	25	Decabobo, Palawan	Malawig, Palawan	<b>Tagbanua</b> , Cagayan, Tagalog
27	Q	M	58	Decabobo, Palawan	Decabobo, Palawan	<b>Tagbanua</b> , Cagayan, Tagalog
28	R	M (+F)	54	Decabobo, Palawan	Bicutan, Rizal	<b>Tagbanua</b> , Cuyonon, Cagayan, Tagalog
29	S	M	63	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Cuyonon, Tagalog
30	S	M (+F)	29	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Cuyonon
31	T	M (+F)	38	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Cuyonon, English
32	T	M (+F)	68	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
33	T	M	29	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
34	T	M	19	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
35	T	M	23	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
36	T	M	23	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
37	T	M	22	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
38	T	M	22	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
39	T	M	16	Dimipac, Palawan	Mindoro Oriental	<b>Bisaya</b> , Tagalog, Cuyonon
40	U	M	32	Dimipac, Palawan	Caluit, Palawan	<b>Bisaya</b> , Tagalog, Cuyonon
41	U	M	20	Dimipac, Palawan	Caluit, Palawan	<b>Bisaya</b> , Tagalog, Cuyonon
42	U	M	20	Dimipac, Palawan	Caluit, Palawan	<b>Bisaya</b> , Tagalog, Cuyonon

*Note.* (+F/M) indicates the presence and gender of family member who was influential or contributed to the associated participant's responses. Demographics were not collected from these persons, as they were not formally identified as participants. Such "participants" are referred to throughout this section and others as secondary participants.

The fisherfolk, both female and male, were members of households in which fishing was a primary economic activity. Ages ranged from 16 to 68 years. There were eight female participants, 34 male participants, and one male and nine female secondary participants who influenced the key participants. Although some participants were members of local People's



Organisations or similar groups, none of the participants served on any of their respective *barangay* councils. While all participants had experienced some level of formal education, participants learned important livelihood skills (e.g., fishing) by means of informal education systems in which knowledge was passed from generation to generation. Formal education attained by the participants is depicted in Figure 4.1.

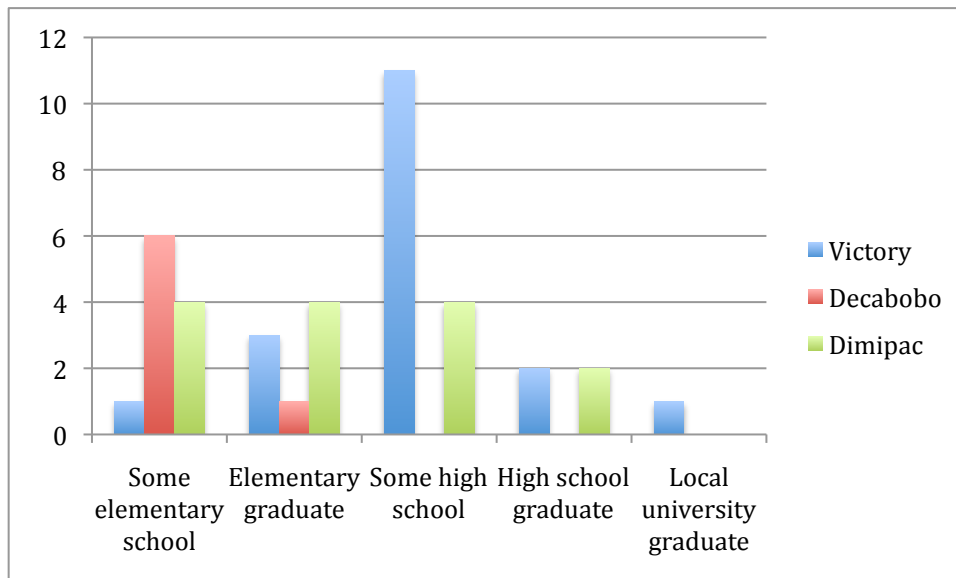


Figure 4.1: Formal education of participants. Until 2012, the school system in the Philippines differed from the international Western standard of kindergarten through years 12/13. The past system was composed of an elementary/primary school programme that included years K-6 with a four-year high school programme immediately following; the Philippines had previously lacked years seven and eight that are typically fulfilled by an intermediate school.

Decabobo had the lowest level of reported formal education. This site also had the smallest sample ( $n=7$ ). It is unclear if reported education levels are representative of Decabobo or a factor of a small sample. The difference in high school participation between Victory and Dimipac may be a result of geographic isolation associated with outlying islands. There are schools reachable by foot from Victory on Santiago Island, whereas there are no formal schools on Dimipac Island. The nearest school is on Calauit Island, about four kilometres via waterway. Fluency in the English language in the Philippines can be correlated to the length of formal

education. The majority of high school graduates will have a basic fluency in the English language.

The following description offers a phenomenological portrayal of the participants, beyond the basic and quantifiable socio-demographic data. These accounts are based on my observations and interpretations found during the data collection and are supported by my research journal notes as well as other sources, including secondary data and the literature. All three groups were comprised of both resident families that had been in the area for generations, as well as migrant families, and are typical of fisherfolk communities throughout the Philippines.

Emergent factors influencing immigration included returning to a family member's birth home, as well as natural calamities. An immigrant resident of Victory described a natural calamity as the reason for his migration; he said that he "arrived in Victory in 1991 when Mount Pinatubo erupted." Whereas some of the participants understood or spoke some English, none of the participants stated English as their mother tongue. Likewise, the translators, though fluent, did not consider English their mother tongue. The language barrier presented itself as humorous rather than difficult. On multiple occasions during different interview sessions, all three translators responded to me in Tagalog. This 'mistake' was often met with laughter on behalf of the translator and interviewees present. Though extremely limited in my fluency, I attempted to use Tagalog words and phrases when possible, especially when welcoming and thanking the participants. My limited use of the language was always met with a smile. It was common for participants with some fluency to willingly respond to the simpler questions in English and then to switch to Tagalog or another Filipino dialect for the questions requiring a more detailed response.

During the interview sessions, participant personalities emerged as well as character traits. Though personalities differed, the characteristics of the participants were similar. Notably, all of the participants welcomed the interview process, even though the interviews were not scheduled and the visits were unannounced. All of the interview sessions took place in or around the residences of participants. The participants spontaneously welcomed me into their

lives, and in some cases, their homes; as reflected in my research journal, “it was amazing with what ease the participants interviewed.” During the first interview sessions at the Barangay Victory research site, I reflected on my own unease about the interview process. I noted feeling that the interview questions were “tedious.” I decided, however, that the participants did not seemingly perceive the interviews as an invasion, as I noted (while listening to the audio records of the Victory interviews), “there was no rush or impatience on their [the participants’] behalf, but perhaps on mine as I tried not to waste their time.”

#### *4.2.1 Livelihoods*

This section addresses the first research question that asked how members of fishing households identify with fishing as a livelihood. The goal behind this question was to explore the fisherfolk perceptions of fishing as a livelihood as bases for exploring their potential willingness to diversify their livelihood as well as in light of the current literature that suggests fishing is a unique livelihood with high occupational satisfaction. The participants surveyed were involved in fishing or previously involved in fishing as a primary livelihood. In Victory the majority of participants (71%) were registered as fisherfolk at the *barangay* level. In Decabobo 86% were registered as fisherfolk. In Dimipac the number of participants registered was much less with only 29% of participants registered as fisherfolk. The dependence on the fisheries for both income and sustenance significantly affected the lives of the participants. Age was a predictor of length of time spent in the fishery. Many of the elder participants could only provide an age at which they started fishing. It was common for participants to enter the fishery before their teens. One participant from Decabobo who had been in the fishery for 60 years, chuckled and said, “it is more like sixty-hundred!” Four of the younger participants from Victory had recently entered the fishery. Two of them had left jobs at a bakery, one had left a job as a construction worker and the other had left a job as a sales person in a national chain store in Manila. Figure 4.2 represents the temporal involvement of the fisherfolk surveyed.

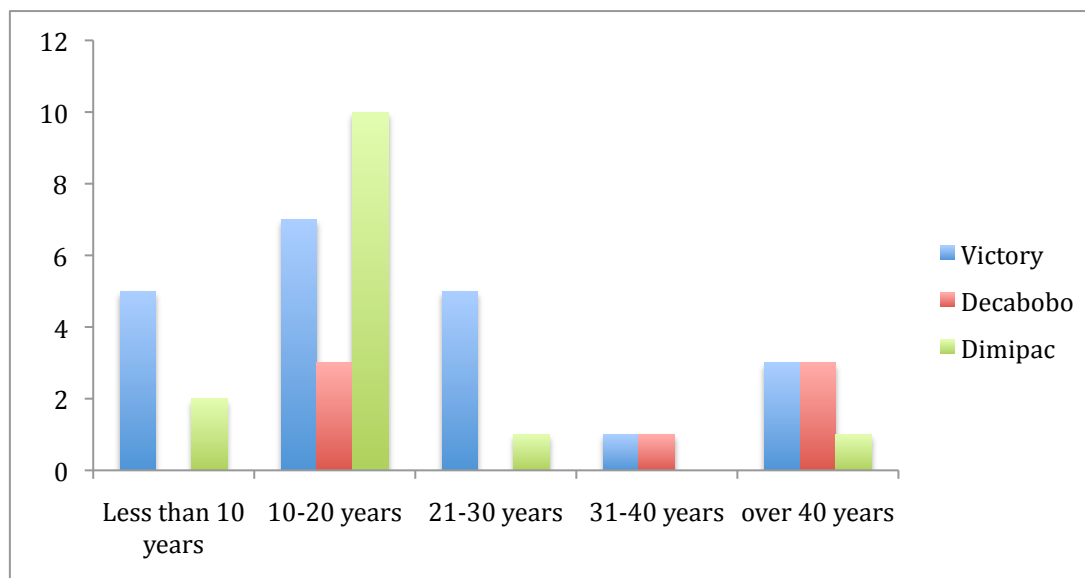


Figure 4.2: Years of involvement in the fishery. This figure is limited to experience in vessel-based fishing and does not include foot-based fishing efforts such as gleaning. It is common for children under age five to accompany their parents during gleaning.

In all three research sites, it was evident that need dictated fishing effort. In Victory, one participant stated, “we need to fish to feed the children.” A participant from Decabobo emphasised the dependence on the fisheries saying that fishing, “is our future.” Likewise, in Dimipac, a participant explained that if, “there is a need to fish and the season is right, we fish.” In all three research sites, it was common for members of fishing households to participate in other part-time or seasonal business. These side activities are referred to locally as “sidelines.” Though not commonly associated as a sideline by participants, gleaning (see Figure 4.3), or the on-foot collection of smaller marine organisms (e.g., molluscs, crustaceans, pipefishes) from the nearshore environment, is reported as a sideline. Throughout all research sites, it was more common for women than men to participate in gleaning activities. However, through on-site observations, I noticed men helping with the preparation and cooking of the gleaning ‘catches.’ I also noted observations about the process of removing the meat of small gastropods by the hundreds, with an open safety pin, writing, “time does not seem an issue. Such tedious effort results in only the tiniest of morsels.” The meat is sometimes eaten raw or cooked as a stew. Gleaning provides a staple protein in these remote locations.



Figure 4.3: Women gleaning for molluscs. Small molluscs are collected and cooked for consumption; the meat is removed from the shells with a small needle or pin. Other marine organisms, such as pipefishes (syngnathidae) are collected and dried and sold as a source of cash income.

Shell souvenirs are common throughout the Philippines (see Figure 4.4) and shell exports are a noted economy in the Philippines. Though the shells collected from gleaning are a low value export, I had previously assumed that selling of empty shells would be a standard practice as the effort to collect the organisms had already been made. Participants were asked if they sold any part of the gleaning catch, including the empty shells. Selling of the shells was only reported in Victory, where five interviewees reported occasionally selling empty shells. As one fisherfolk stated, “sometimes we eat the meat, sometimes we sell it. After we eat, then we can sell the shells, but sometimes we throw them away.” Ten participants from Victory reported occasionally selling part of the gleaning catch. Selling of the gleaning catch was not reported in Decabobo. In Dimipac, two interviewees reported selling excess catch, noting “we sell meat if we have enough extra. But we don't sell empty shells.” The small gastropods are sold in units

referred to as a “Caltex,” which references the litre-size plastic container. One Caltex container sells for thirty Philippines Pesos, which is around 70 cents US.



Figure 4.4: Souvenirs stand in Bolinao Town Proper. Shell souvenirs are common throughout the Philippines. The smaller shells that have been crafted into shell chandeliers and other curios are the same type of shells collected for meat consumption.

In addition to gleaning, other reported sidelines of participants from each research site are depicted in Figure 4.5. In multiple cases, additional sideline activities emerged throughout the interviews. For this reason it is expected that the data does not provide a complete representation of actual involvement in sideline activities. In particular, based on anecdotal evidence from conversations with local guides, translators and brokers and from personal observations, it is plausible that farming in particular was underreported.

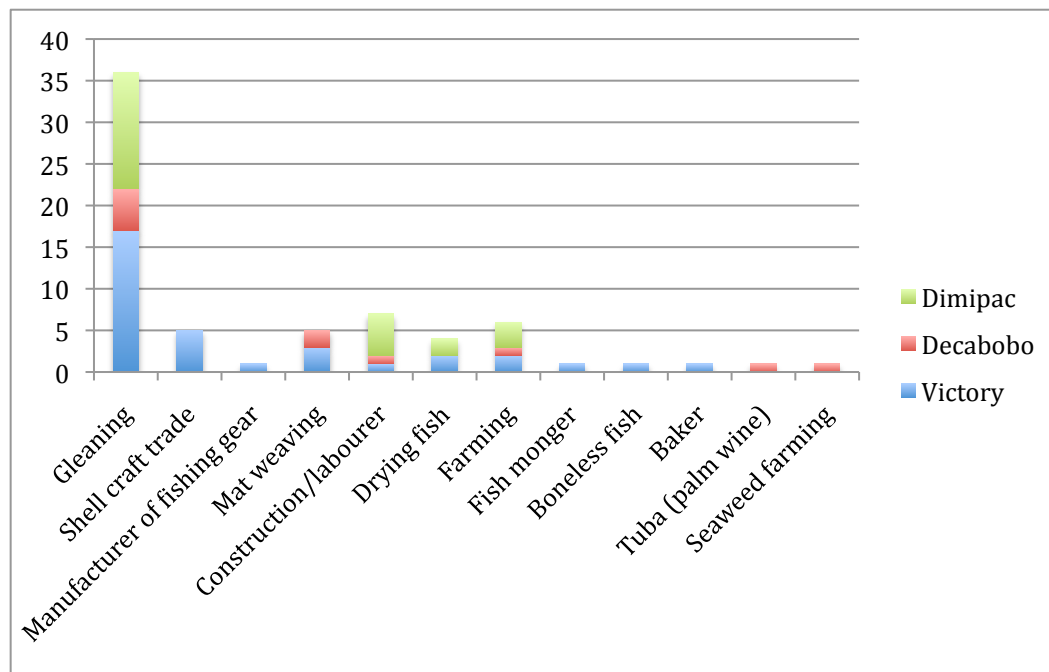


Figure 4.5: Reported sideline activities of participants. The majority of participants were gleaners. Many participants also reported involvement in other additional sideline activities outside of gleaning.

The occupations such as shell-craft trade, fishing gear manufacturer, farming, fishmonger and baker are considered self-explanatory. The others benefit from further descriptions. The sideline “mat weaver” referred to the handicraft skill traditionally practiced by women. Natural plant fibres are processed stripped of thorns, boiled, cut to size, and sometimes dyed. Weavers then use strips of processed plant fibres to weave various products focusing mainly on flat floor mats. These mats and similar woven mats are also used as walls in the simple structures or “huts.”

Construction/labourer was straightforward for the most part, with some of these participants taking jobs as painters or handymen given the opportunity. However, one participant from Decabobo reported working as a labourer as a “forest cleaner.” This was confusing as although there was plenty of trash and litter, there were no conservation operations in the area focusing on this type of activity. Later in this interview I realised that he may have been referring to the *kaingin*, or slash and burn farming. When I had the translator revisit this question, slash and



burn farming was indeed the activity he was referring to as “cleaning the forest.” It is common for migrants to pay indigenous workers such as this Tagbanuan participant to clear the forest for *kaingin* farming (Dressler & McDermott, 2010).

Drying fish and boneless fish were both sideline occupations that involved processing the catch in some way. Drying fish refers to placing small fish of various species out on nets to dry in the sun (see Figure 4.6). These are a common staple at breakfast and other meals. De-boning fish is often practiced by women. This tedious process involves removing tiny bones with forceps thus, improving the consumptive value of the fish.



Figure 4.6: The preparation of *tuyo*, or dried fish. A common method of preparation is placing fish on a net for sun drying.

The final two sidelines yet to be explained are *tuba* and seaweed farming. *Tuba* or palm wine (sometimes called *Lambanog*) is basically fermented palm sap. There are informal (community-level) and formal (export quality) markets for this product and the refinement varies accordingly. Seaweed farming as relevant to the participants describes a small-scale and individually managed practice; microfinance programmes for seaweed farms are common. The method common to these areas was similar to the “bottom monoline method” described by Juanich (1998) in which lines are fixed to the bottom with stakes and seed stock are attached to the line at consistent intervals.



#### 4.2.2 Fishing effort

Fishing vessels varied slightly by region. In Victory, all but one of the participants reported using a *balsa* (refer to Figure 3.9) for part of or all of the fishing efforts. The single fisherfolk not using a *balsa* reported using only a *banca* for fishing. Six others reported using a combination of *balsa* and *banca*; one of these participants noted that he did not own the *banca*, which was instead financed by the *banca* owner. The uses of *balsas* were only reported at the Victory site. This was likely a function of the shallow nearshore environment resulting from the outer barrier reef. In both Decabobo and Dimipac all participants used *bancas* for fishing efforts. In Decabobo, all seven respondents reported using a personally or family-owned *banca* for fishing. In Dimipac, some participants used a family-owned *banca*; however, 'hitching' or joining in on others' fishing efforts was common. As one Dimipac resident explained, "we only use a boat either borrowed from my brother or hitch from other fishermen who have a boat or borrow a *banca*." A different participant described the logistics of such an arrangement, stating, "we just join someone with a boat and gear. We share the labour and expenses. Then we split the profits and the catch."

The majority of participants targeted a mix of fishes, referred to locally as *sari-sari*. This phenomenon, is likely consequential of the use of mixed and/or unselective gears (e.g., nets). Figure 4.7 shows the effect of gears on reported catch. Many participants reported a range of catch (e.g., 5-10kg) and also reported a possibility of lack of catch (0 kg). Assuming the possibilities of a zero catch and also the variability between daily catches, the highest number from the reported range was taken for data analysis purposes. Two participants from the Decabobo site reported their catch as a number rather than a weight. In this case, an average weight of half a kilogram per fish (a common size of hauled reef fish) was assigned to estimate the catch in weight. As a result, the accuracy of the reported catch is questionable due to the large ranges in reported catches. As one participant responded when asked what his daily catch was, "sometimes 20 kilograms; sometimes zero."

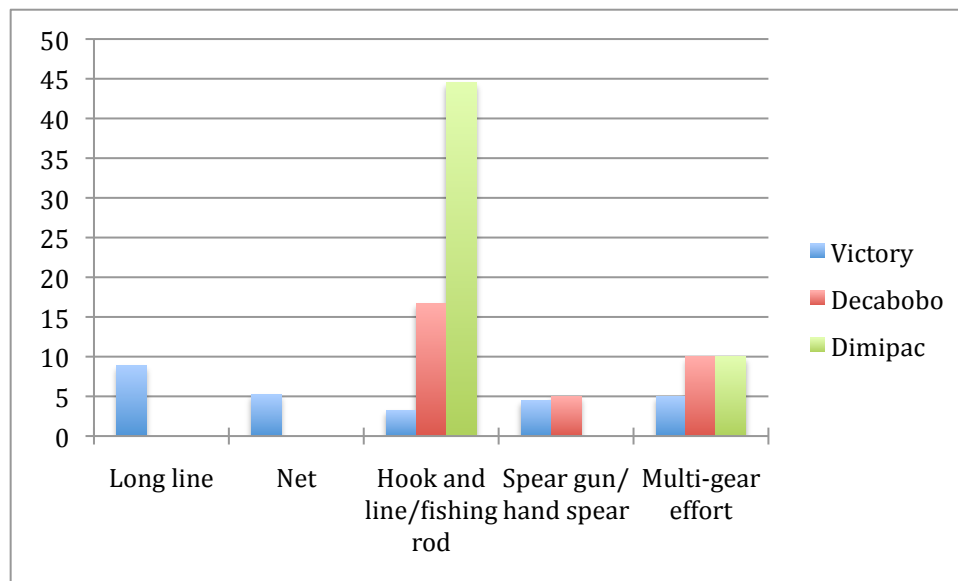


Figure 4.7: Reported average daily catch in kilograms as a function of gear(s) used. Hook and line/fishing rod referred to line gears with three or less hooks, while long line described setlines with multiple (e.g., +100) hooks.

The spike in reported daily catches in the hook and line fishery on Dimipac is resultant from values reported by all nine participants from a single group interview session. Following repeated questioning all participants reported being able to land 50kg of catch if one was “hard working enough.”

Some participants from Dimipac participated in the live fish trade, which focuses on groupers (family Serranidae), known locally as *lapu-lapu*. The live reef fish food trade (LRFT), driven primarily by the “voracious” Hong Kong and Chinese markets, is a highly lucrative fishery in comparison to the traditional fishery (Dalabajan, 2009; Fabinyi, 2010, p. 425). One participant explained the difference in market prices stating, “we usually catch the small sizes of fish which sell 20-30PHP per kilo. And some days we fish *lapu-lapu* [grouper]. If we sell it dead, it’s 150 Pesos [Philippine Pesos (about 4 US dollars) per kilogram; if it’s alive, then we get 1000 Pesos [Philippine Pesos (around 25 US dollars)].” Another participant reported prices for live grouper ranging from 2000 to 4000 Philippine Pesos per kilogram (an average of about 45 US dollars).

Participants were also questioned whether they felt their catch was “enough” (see Table 4.2). This question attempted to collect information regarding the actual level of poverty. Such data are important in understanding the participants’ tangible needs for a livelihood shift.

Table 4.2: Perception of Catch

Perception of catch	Victory	Decabobo	Dimipac
Enough	8	3 (+2)	2 (+8)
Sometimes enough	6	2	1 (+3)
Not enough	3 (+2)	0	0
Response missing	2	0	0

*Note.* Numbers outside of parenthesis indicate individual responses. Participants from group interview sessions whom have agreed with a single response have been depicted in parenthesis.

In all three sites, more interviewees than not felt that the catch was enough. The variable nature of fishing was summarised by an interview from Dimipac:

We catch enough fish. But there are times when there is really nothing to catch. It's different if you fish or work in an office. An office is always there. But if you are hard working enough you can get fish, you try harder.

Those that responded stating the catch was not enough were asked to expand. In Victory their justifications of lack of catch included competition, illegal fishing and seasonality of the fisheries. As one interview stated, “every year, there is more illegal fishing, so there are no more fish nearshore.” Seasonality, illegal fishing and competition were also considered as factors in Dimipac. In Dimipac, participants made specific reference to outsiders (those not from the area) coming to fish. In contrast, none of the fisherfolk in Decabobo reported the catch as being not enough; therefore, seasonality, illegal fishing and competition were not viewed as factors influencing the perceptions of catch. In Decabobo, the occasional lack of

catch was met with laughter and as one respondent said seemingly amused, “sometimes I catch nothing. I don't know the reason.” This statement was representative of those in Dimipac who did not feel the catch was enough.

To better understand the perceived state of the fisheries, participants were also questioned about changes in the fisheries over the last decade. In Victory twelve reported a decline in the catch, one reported no change and one reported catching more at the present than before. In Decabobo three participants reported a decline in the fisheries. In Dimipac all participants reported a decline in the fisheries.

In Dimipac, an interviewee explained, “the expenses went up and the catch went down.” In both Decabobo and Dimipac, participants referenced the effects of non-residents fishing in the nearshore waters of their respective homes. One said, “the ones who use the illegal methods are the intruders; they come from other places and just come here to fish and use sodium cyanide.”

#### *4.2.3 Income*

Participants reported income as a daily or weekly figure (Figure 4.8). Participants were able to meet basic food needs through personal earnings and fish catch or by borrowing money from relatives. Income was related to catch which was influenced by seasonality. Additionally, sideline activities augmented participants’ incomes. As one participant stated, “we don't fish the whole year. If the weather is good, we fish, otherwise we farm.”

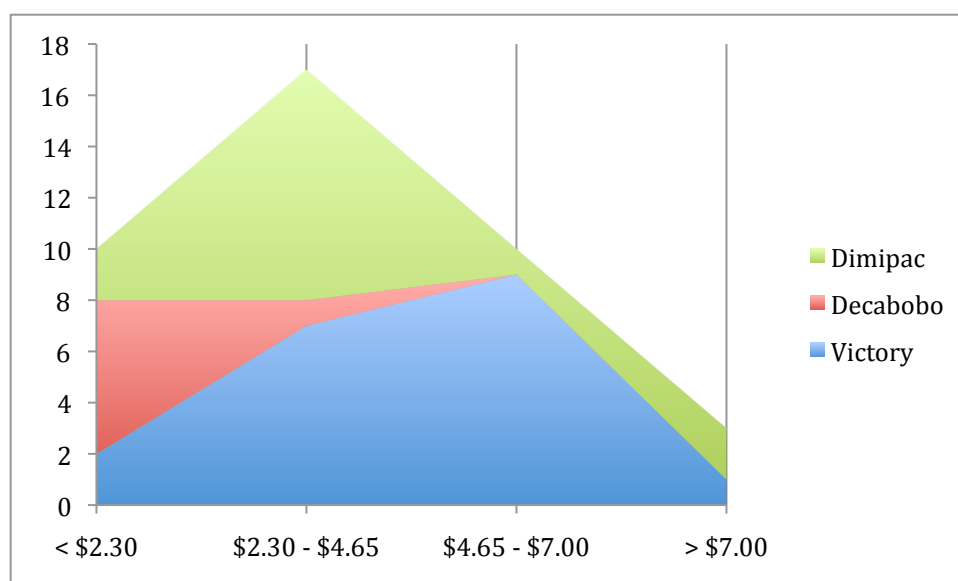


Figure 4.8: Reported daily income of participant households. Participants reported income in daily, weekly or monthly figures in Philippine Pesos. For the purposes of comparison, all amounts were converted to daily incomes in USD using a currency exchange rate of 43 Philippine Pesos to 1 US dollar (a common exchange rate during the times of data collection).

Businesses in provincial areas operate on a cash and/or informal credit system. Credits and loans are recorded by hand in a logbook. Participants did not use a formal banking system; therefore, the accuracy of amounts and transactions reported is questionable. In addition, participants reported income as a household figure; however, what constitutes a ‘household’ is often difficult to define. In some cases their households were shared by multiple generations, creating multiple nuclear families in a single household. Many samples were representative of this. Although each participant in a shared household reported their own income, it is likely that there are overlaps within the reported incomes as fishing efforts are commonly shared. This assumption is supported by the large group interview in Dimipac (n=9). All members of the group were blood relatives and after nearly a minute of discussion amongst themselves, an elder female bystander spoke for the younger participants stating, “monthly, 3000 Pesos [Philippine Pesos (about 70 US dollars)] monthly. It can be 5000 Pesos [Philippine Pesos (about 115 US dollars)], but as low as 3000 Pesos [Philippine Pesos].” When asked how many this amount covered, she said they [in reference to the younger male participants] were single, but

contributed to their households. These participants reported spending the majority of their earnings on food for the households. In Decabobo when asked the size of the household, one participant stated, “50 persons are family living in this community; but in this house 20.” On multiple occasions, I observed generations of family sharing a single structure. In one particular case, in addition to the common family shelter, there was a plastic tarp strung up nearby where children from two generations shared the space for resting.

Six participants specifically noted that sometimes their income is zero. This was a reported result of a lack of catch or a result of inability to fish. In the case of inability, two participants attributed their health and age to their lack of earning power. As one participant in Decabobo responded, “sometimes I earn zero because I am old and weak.” The fluctuation in income may also work in favour of the fisherfolk. In Victory a participant who reported earning nearly 2000 Philippine Pesos (about 47 US dollars) per week stated that he might earn as much as 2000 Philippine Pesos per day. He further explained that on good earning days, he was able to sometimes save money, but that he often spends the extra money on his hobbies – cock fighting and drinking. The spending of money on ‘non-essential’ items was also reflected in Dimipac with a participant from an interview session, speaking for the group, said that they “drink and go to town from time to time and sometimes we buy new clothes.”

#### *4.2.4 Expenses*

Daily expenses included food, specifically rice, and basic necessities. Food is supplemented with part of the catch and also augmented by gleaning. Rice is a staple food in the Philippines and is part of all meals. If the catch is minimal, rice is used to supplement the meal. As described by a participant in Victory, “the catch is a part of the meals. If we have catch, we buy 300 Pesos [Philippine Pesos (about 7 US dollars) of rice per week, but if we don’t have catch, we buy 700 Pesos [Philippine Pesos (about 16 US dollars)].” Nine participants listed coffee and sugar as part of their expenses. Participants with families often put income towards education related expenses such as uniforms, transportation, food and school supplies. It was common for families with infants or toddlers to expend money, and sometimes go into debt to purchase

milk formula for the children. When questioned about this, these participants felt it was necessary to supplement breast milk with formulas. Women were not specifically questioned about their choices regarding infant care and feeding. During data collection at Decabobo and Dimipac Island, the women interviewees were surprised to learn that my son was (at the time) exclusively breastfed.

Eleven participants stated alcohol as an occasional expense. One wife of a participant confirmed this, stating, “sometimes they [the husbands] need wine.” Three participants included cigarettes as standard expense. As one man in Dimipac exclaimed, “cigarettes! The day is so sad without cigarettes! I will get one now!” While cigarettes are unnecessary for survival and may be considered excessive expenditures to the outsider, they portray a more realistic picture of the day-to-day living conditions and wants and needs experienced by the participants both young and old. Alternatively, an elder, male participant from Victory used any surplus income to purchase extra rice, creating a type of food savings.

#### *4.2.5 Occupational satisfaction*

Participants were asked to describe fishing as an occupation. Table 4.3 summarises the emergent themes that influenced participant satisfaction with fishing. Way of life, weather and catch were the most recurring themes stated by participants. Weather plays a significant role in the fisheries of the Philippines. The country is subject to two annual typhoon or monsoon seasons, *habagat* [the southwest monsoon] and *amihan* [the northeast monsoon]. *Amihan* occurs between the cooler months of November to May, while the wetter *habagat* season fills the remainder of the year. It is common for over twenty typhoons to hit the country each year. While typhoons are rare during the *amihan* season, other storms and associated weather cause many of the smaller vessels, common to the artisanal fisheries, to remain grounded for days and sometimes weeks (Fabinyi, 2010; Goldoftas, 2006). However, comments involving weather were limited to the Victory research site.

Table 4.3: Themes Influencing Satisfaction of Fishing as a Livelihood

Themes	Victory	Decabobo	Dimipac
Weather	13	0	0
Catch	6	4	0
Way of life	6	3	14
Occupational control	1	0	4

It is unclear why weather as a factor was only reported in Victory; however, it may be a geographical phenomenon. Victory is exposed to the South China Sea, while Decabobo and Dimipac are part of the Calamian Island Group. Within the Calamianes there are many smaller islands and lee-shores making fishing during bad weather more feasible. As a Victory participant summarised the effects of weather on the catch, “sometimes if the weather is good, we are very grateful, but if the weather is bad, it is very difficult to catch fish.” Four Victory participants made specific references to personal safety as an effect of weather. One of these references was from a woman who had lost her father in an accident at sea. As she said, “my father got lost in a boat when they thought weather was good and died at sea... It [fishing] is very risky and I am not comfortable with it especially after what happened to my father.”

For others, satisfaction with a fishing livelihood was a simple effect of catch. In Decabobo a retired fisherman reminisced, “if I could catch fish I was happy; if not, I was sad.” This simple outlook is representative of the other participants who indicated catch as a theme for occupational satisfaction. Responses from three members from one interview session in Decabobo cited catch as the ultimate factor in occupational satisfaction; however, they justified a lack of catch with God’s will. Such reliance on divine intervention was evident in fishing communities surveyed as multiple participants mentioned their faith and referenced God’s will during the interview sessions. The reported higher catches in Dimipac (Figure 4.7) may have had an effect on the lack of reported concern for catch as reported by these participants.



Fishing as a way of life was the only theme common throughout all three sites. For many participants, fishing was what they identified with doing, what they were familiar with and what they knew how to do. Participant responses that were either a simple 'happy' or 'content' were assumed to be generally satisfied with their livelihoods. Such responses were included under the theme 'way of life.' This decision was made on the basis that such participants did not offer any negative associations with fishing as a livelihood (e.g., hard work, dangerous), nor did they refer to any difficulties associated with fishing. Fishing was simply what they did. Similarly, references to personal abilities were also absorbed under the theme 'way of life.' For example, one Victory participant stated, "for me, catching fish is easy." Such comments were coded as representations of occupational dignity. In other words those referencing ability were not only satisfied with their performance but again associated being a fisher as who they were.

Occupational control, more specifically the ability to dictate temporal fishing efforts, could arguably be included under the theme 'way of life;' however, it was separated as it was anticipated that this specific theme has more serious implications for the goal of this research. In Dimipac there was a notable emphasis on the flexibility or occupational control associated with a fishing livelihood, more specifically, the ability to choose when and where to work. An example is a participant, who said:

We're content with what we do. It's a source of living. We can fish or we can farm anytime. Fishing is part-time because of the season and weather. Sometimes people ask us to transport fish to the main town with our boats, but we don't do it. It's too far. We're satisfied with what is here.

Another Dimipac resident stated similar sentiments, saying, "we do it for a living. If we don't feel like fishing, we don't... It is something to do." Similar ideals associated with fishing as a 'way of life' are supported further in the next section on willingness to exit the fishery.

#### 4.2.6 Willingness to exit the fishery

Participants were asked if they were willing to leave the fishery provided there were new opportunities. All participants stated at least a partial willingness to leave the fishery for new opportunities provided the new opportunities improved their livelihood. Some participants offered explanations beyond an affirmative answer. For example, a Dimipac interviewee explained, “it depends. We are open to new opportunities as long as it will give us more money. And if it's OK with us.” When asked to clarify what defines ‘OK,’ he explained, “it has good rules. Anything as long as we can do it and it's more than what we earn now.”

Others, though willing to try a new livelihood, stated affection for fishing. As one Victory woman stated, “I would try [a new opportunity], but we love fishing.” Another participant indicated a long-term relationship of commonality with fishing, stating, “it is my job that I have known since I was a child.” Table 4.4 depicts the common themes affecting the willingness to exit the fishery by location.

Table 4.4: Willingness to Exit the Fishery

Emergent themes	Victory	Decabobo	Dimipac
Good rules	3	2	5
General improvement of standard of living	3	0	11
Religious (god willing)	1	3	0
Declining catch	0	0	3
Affection towards fishing	2	0	0

*Note.* ‘Good rules’ included a variety of references to the conditions associated with a new opportunity. For example, participants’ responses included that new opportunities must be easier than fishing, legal work, jobs provided by the government, or in-line with participant abilities including health.

#### 4.2.7 Synopsis

While the definition of livelihood refers to one's means of subsistence or securing the basic necessities, interpreting livelihood satisfaction is challenging. The support of qualitative livelihood data was presumed to have improved upon the commonly applied quantitative measure of livelihoods. The phenomenological context from which these livelihood measures were drawn, attempted to create measurements based on the perceived realities of those being measured.

### 4.3 The marine environment

A common goal associated with alternative or supplemental livelihoods projects in fishing communities is to relieve pressure on the fisheries by lessening the dependency on them. In addition to understanding the perceptions of a fisheries livelihood, outcomes of this research are dependent on the participants' perceptions of the marine environment. This section presents the answers to the second research question that regarded participant understanding of the current state of the marine environment and the applied marine management strategy. Specifically, issues including the participants' understandings of the marine management efforts, fisheries laws, as well as the use and/or misuse of the marine environment are presented.

#### 4.3.1 Marine management

The remoteness of many fishing communities coupled with the inconsistencies within the local governments, presents a management challenge. Throughout the course of this research, both on and off field research, not a single patrol vessel was observed. The only form of enforcement witnessed was the *bantay dagat* [sea wardens]. *Bantay dagat* is a programme run by BFAR in which members of the community are trained as voluntary marine enforcement officers. The literal translation for *bantay dagat* is watchdogs of the sea (Goldoftas, 2006, p. 93). *Bantay dagat* officers have the ability to make arrests; however, they are unarmed and do not have

surveillance or patrol equipment. In Victory my local guide was also a *bantay dagat*. In Decabobo and Dimipac the presence of *bantay dagat* was not observed.

The fisheries of the Philippines fall under national jurisdiction and are, therefore, governed by national law. While local management efforts may vary by *barangay*, all fisherfolk are held accountable to the national fisheries laws. Thus, a section of the inquiry was dedicated to exploring participants' perceptions about marine management governance. To accomplish this, interviewees were asked two questions. First, who or what [agency] is responsible for marine management and enforcement? And second, who creates the fisheries regulations? As fishery laws are a national standard, responses from all three sites were grouped together. It became evident through repetitious responses that the two questions were not well understood as separate functions. Therefore, results from the two questions have been combined (see Figure 4.9).

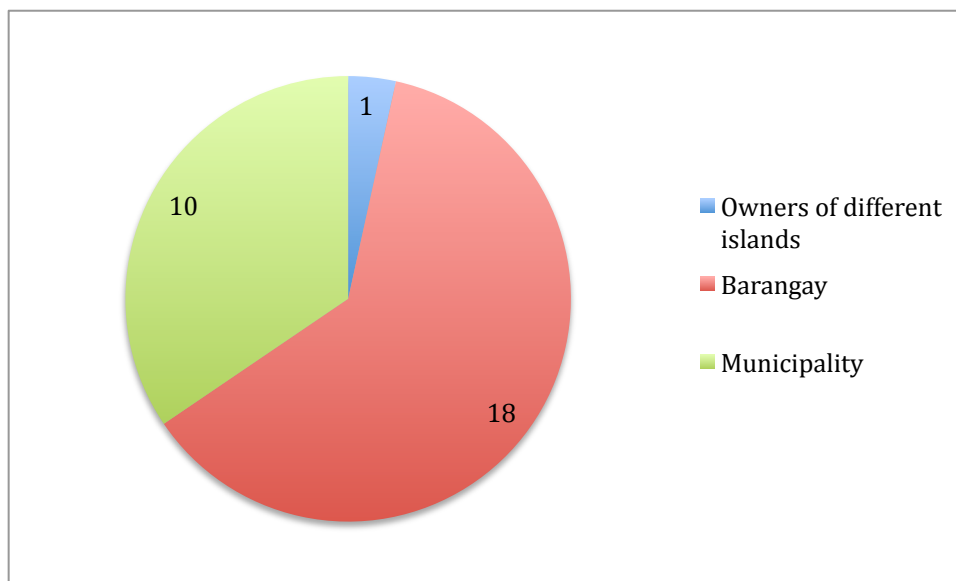


Figure 4.9: Bodies responsible for marine management in Victory, enforcement and law-making.

Some responses were missing as some interviewees did not know the answer or understand what was being asked. Participants identifying the *barangay* as responsible for fisheries management, enforcement, and lawmaking included references to the *bantay dagat*, the

*barangay* captain and other key community members. It is noted that all direct references to role of the municipality came from Victory participants. In Dimipac, one interviewee explained a secondary role of the municipalities or local government units (LGUs), “*bantay dagat*. We have the fish wardens and they report all illegal activities to the LGUs for fines and punishment.” The same participant mentioned the role of the National Commission on Indigenous Peoples (NCIP) noting that they check and evaluate the marine resources. He further explained that, “fish wardens and police come from time to time to come check on fishers.” It was surmised that the latter reference to fish wardens refers to BFAR agents. Not a single participant identified BFAR as having a primary involvement in the fisheries management, enforcement and law making. Specific functions of BFAR are detailed in Appendix 6; in summary, within the Philippines:

The Bureau of Fisheries and Aquatic Resources (BFAR) is the government agency responsible for the development, improvement, management and conservation of the country's fisheries and aquatic resources. It was reconstituted as a line bureau by virtue of Republic Act No. 8550 (Philippine Fisheries Code of 1998). The bureau is under the Department of Agriculture. (BFAR, 2010a)

While many participants identified the *barangay* as having a leading role in fisheries management, the actual role of the *barangay* was difficult to place. Specifically, participants who did not identify the *barangay* as having a role in marine management were asked how their respective *barangay* was involved in marine management. Only data from Victory are reported. In Decabobo and Dimipac, all of the responding participants indicated that the *barangay* was responsible for marine management. However, in Victory, where most participants identified the municipality as the governing body for marine management, some participant responses included a concise involvement as active or inactive, while others provided more detailed narratives. Table 4.5 presents the described involvement of the *barangay* and emergent themes supported by narrative responses from those participants in Victory who elaborated on the *barangay's* involvement in marine management.

Table 4.5: Opinions of Victory Residents Regarding the *Barangay's* Involvement in Marine Management

Reported activity	Themes	Participant narratives
Inactive	Ineffective	"The <i>barangay</i> is not active in marine management. They are weak."
Inactive	Ineffective	"There are some <i>barangay</i> officials that are active and some that are not active."
Inactive	Ineffective	"They are just supervising, [they say] get this, get that. Each one has different ideas."
Inactive	Ineffective	"They are sometimes active, sometimes not in marine management."
Inactive	Lazy	"They [the <i>barangay</i> ] are getting lazy."
Inactive	Lazy	"It depends. *Giggling* There is an attitude of the officials that if they have power, they have control."
Active	Lazy	"They are active, but the people are active too."
Active	Effective	"They actively participate, if there is a main project, they will be here to help support."
Active	N/A	"They are active." How? *Giggling*

*Note.* Combined with the other single-word responses, a total of six interviewees felt the *barangay* was active, while twelve felt the *barangay* was inactive. Asterisks denote specific behaviours determined to have contributed to or even changed the intent of the response, such as giggling.

While the majority of participants identified the level of *barangay* involvement as minimal, at least some of the interviewees from each site were able to identify other marine management efforts. Participants were specifically asked about local programmes targeted at fisherfolk or the marine environment that were hosted or funded by NGOs, academic institutions or the *barangays*. Table 4.6 presents these results as a function of the research sites.

Table 4.6: Marine Management Efforts by Research Site

Participant identified programmes	Victory	Decabobo	Dimipac
Sea cucumber Sea Ranch	17	N/A	N/A
<i>Bantay dagat</i>	1	0	5
Marine Protected Areas	5	5	0
Mangrove restoration	11	0	0
Fish pens	1	N/A	N/A
Microfinance	0	3	0
Seaweed farming	0	3	0

The MPAs referred to in this inquiry are part of ‘local’ MPAs. In the Philippines 29 MPAs are nationally recognised; it is estimated that there are over 1,500 local MPAs (Coral Triangle Atlas, 2012). As the existing development programmes vary amongst the sites, supporting observations and narratives are presented as they relate to the specific research sites.

#### *Victory*

The sea ranch is a project specific to Victory located less than 100 metres offshore. Though all Victory participants were coastal residents, not all interviewees mentioned the sea ranch as a marine programme. On more than one occasion, the translator spontaneously asked, “what about the sea ranch?” When such incidences occurred, interviewees responded in agreement that the sea ranch was a marine programme in the area. Nine of the participants were directly involved in the sea ranch project. One reported a secondary involvement stating, “I’m not a member, but I am an active observer. If I find a sea cucumber outside the ranch, I throw it back in.”

The MPA referred to by Victory interviewees is located just offshore and like the Sea Ranch, is in clear sight from the coast. Although the local guide for this site was a certified *Bantay dagat*, none of the participants identified this as a marine management tool. One interviewee in Victory was confused about the affiliation of programme staff. She mistakenly identified the

UPMSI staff (who play an active role in marine management projects in and around Victory) as government BFAR employees.

#### *Decabobo*

In Decabobo, two participants were unable to name any marine programmes in or around the *barangay*. Two interviewees were active members of a microfinance programme that promotes the small-scale culture or farming of seaweeds. Five interviewees stated the MPA as a programme, but were unable to identify its location. As one interviewee said, “I think it’s in front of the *barangay*.”

#### *Dimipac*

The *bantay dagat* was identified by over a quarter of Dimipac participants as a marine management programme. Aside from enforcement programmes, other management, conservation or development projects were not mentioned. However, multiple participants volunteered opinions when questioned about local marine programmes. One said, “there are a lot of programmes that have come here and interviewed and organised programmes. They promised us a project like they will give us fishing nets or gears; instead people would wait for the project to come. All the requirements have been done, but the project never arrives. Maybe probably it has arrived, but we were not part of it.” Similarly, another interviewee noted, “there are a lot of projects, but some did not prosper. Some of them promised, but nothing happened.” Three of the interviewees reported farming programmes in the nearby area. This was not included in the above table, as it did not directly pertain to the marine environment.

#### *4.3.2 Fishing and the marine environment*

Illegal fishing is commonplace throughout the Philippines. During the second interview session in Victory, I heard what seemed to be blasts from dynamite fishing. Another witness confirmed this. Similarly in the waters nearby Decabobo during a snorkel, I observed the effects of dynamite fishing. In Dimipac, during the data collection, there were many reef fish (mostly from



the family Balistidae) washed ashore; these were likely a result of nearby cyanide fishing. In all three sites, I observed multiple fine mesh nets. The law governing the use of fine mesh net is unclear as it can be used for some species, but by nature it is a non-selective gear. The Philippine Fisheries Code of 1998:

**SEC. 89. Use of Fine Mesh Net.** - It shall be unlawful to engage in fishing using nets with mesh smaller than that with which may be fixed by the Department: Provided, that the prohibition on the use of fine mesh net shall not apply to the gathering of fry, glass eels, *elvers*, *tabios*, and *alamang* and such species which by their nature are small but already mature to be identified in the implementing rules and regulations by the Department. (BFAR, 2010b, n.p.)

Through anecdotal evidence supported by my personal observations, it is understood that illegal fishing occurs regularly in the near-shore waters of all three research sites. This section focuses on participant perceptions of the ecological effects of various fishing gears, as well as the use of illegal fishing methods and gears. It was common for interviewees to speak on behalf of others, therefore, the other interviewees who were represented by a response were asked for their agreement or disagreement to the representative response. Agreements or disagreements to a participant's representative response were counted as individual responses for comparative purposes. Participants were asked how their gears affected the marine environment and later as a separate interview question, if some fishing gears were more sustainable than others. Although there was overlap between these questions, the answers from the questions were recorded separately. It was possible to deduct from the data what gear the participants were referencing from a previous question when asked about the effects of their personal gears on the marine environment. In such cases where the responses were identical (e.g., references to illegal fishing methods), these were reported as a single response and not as duplicate responses. Results are summarised by research site in Table 4.7.

Table 4.7: Perceived Differences in Sustainability of Fishing Gears and Methods

Location	Gear	Illegal fishing			Commercial fishing	Trawls & rakes	Payao [FADs]	Illegal artisanal gears	Legal artisanal gears				
		Unspecified	Sodium Cyanide	Dynamite					Torch	Net (legal size)	Squid trap	Fish trap	Hook and line
	<i>Perceived Effect</i>	Unsustainable	Unsustainable	Unsustainable	Unsustainable	Unsustainable	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
Victory		1	0	0	0	1	0	2	10	1	1	10	2
Decabobo		0	0	1	0	0	0	0	3	0	0	5	2
Dimipac		0	1	0	3	0	11	0	9	0	2	11	2
Total		1	1	1	3	1	11	2	22	1	3	26	6

Compared to seven responses associating certain gears and fishing methods as having unsustainable effects on the environment, 71 responses (which sometimes included multiple references from a single participant) indicated a variety of gears and fishing methods as having a perceived negligible effect on the marine environment and thus, being either environmentally friendly or sustainable. While the demonstrated perceived consistency of effects between the majority of different gears may be indicative of a misunderstood or poorly worded question, it may also be representative of a lack of attention given to the effects of fishing beyond the actual take of fish.

Overall, none of the participants interviewed in any of the research sites felt that their *personal* gears had any negative effects on the environment. Commonly associated negative effects of these gears such as bycatch and derelict gears were not mentioned. As a Victory respondent explained about his net, “the gears have no effect. They [the net] won’t hurt the coral reef, but the coral reef will destroy the net.” Based on the similarity of responses showing commonly used artisanal fishing gears as having the same (and negligible) effect, it appears that the

concepts of selective gears, bycatch and derelict gears are inconsequential to the participants. The gears with strong association with sustainable use (e.g., net, hook and line) are likely indicative of the frequency in which they gears are used. Thus, some of the differences between the research sites can be, in most cases, attributed to slight differences in the fisheries, as well as in gear preferences. For example, the trawl and rake implement was only mentioned in Victory, which is bordered by a shallow, sandy lagoon. Rocky shores and coral reefs were more prevalent in the nearshore environments of Decabobo and Dimipac.

Due to a possible mistranslation, during one interview session in Decabobo, three participants responded to a question regarding effects of visitors, noting commercial fishing as an unsustainable or less sustainable fishing method. The municipal waters of the Philippines are not well enforced and are often fished illegally by commercial fishing vessels. Based on the limited number of references to commercial fishing, it is acknowledged that other factors (e.g., receiving bribery or compensation in the form of fish from commercial vessels for allowing those vessels to fish in the municipal waters) may have affected participant answers. In addition, the lack of mention of the effect of commercial fisheries may have been a result of flaws in the instrument.

While all of the artisanal gears were identified by participants to have no effect on the environment, *Payao*, a hand-made type of fish aggregating device (FAD), was specified by eleven Dimipac interviewees as being 'good for the environment' and thus, a sustainable and environmentally preferable method of fishing. A *payao* is defined by BFAR as "a fish aggregating device (FAD) consisting of a floating raft anchored by a weighted line with suspended materials such as palm fronds to attract pelagic and schooling species common in deep waters" (BFAR, 2010b, n.p.). FADs, such as *payaos*, are not an actual fishing method, but rather an implement expected to enhance other fishing methods.

Illegal fishing was mentioned once at each site as being unsustainable. In Victory the type of illegal fishing was unspecified, while in Decabobo and Dimipac, the interviewees referenced dynamite fishing and sodium cyanide fishing respectively. It is further noted that two

interviewees from Victory reported their personal use of torches as being sustainable. While not specified in participants' responses, the use of lights in excess of 20kW for fishing is prohibited in municipal waters and the use of torches is prohibited in tandem with peripheral fishing devices throughout the Philippines (BFAR, 2001). On more than one occasion, blame for the degradation of the fisheries was placed on the outsiders. As one interviewee in Dimipac stated, "the ones who use the illegal methods are the intruders, they come from other places and just come here to fish and use sodium cyanide." Though illegal fishing was given little attention by participants as an unsustainable method of fishing, the practice was further explored through subsequent questions.

The perception-based results presented in this section demonstrate the level of understanding of the local fisheries management. Additionally, the questions regarding effects of gears used ascertain the perceived level of personal impacts by the fisherfolk on the fisheries and marine environment. To adhere to ethical principles, participants were not questioned about their experience or involvement with illegal fishing. However, to document justifications of the use of illegal gears, participants were asked why they felt people used these gears. These responses are presented as themes with supporting narratives by interview sessions in Table 4.8. In some cases, one interviewee answered on behalf of others present during the interview session. The number of respondents who agreed with a given statement is denoted in parenthesis.

Table 4.8: Drivers in the Use of Illegal Fishing Gears and Methods - Fisherfolk

Location	Themes	Participant responses
Victory	Obeying orders	“They can catch more and earn more money. There is a protector - the boss makes them do it.”
	Requires less effort	
	Requires less effort	“Some use illegal methods, because some fishermen believe that they can catch easily.”
	Requires less effort	“Easy to catch fish.”
	Requires less effort	“To get easy money.”
	Requires less effort	“If they use dynamite there is instant money. They catch more fish.”
	Requires less effort	“It’s easy to catch fish. They want more income.” (+1)
	Requires less effort	“To catch more.”
	Requires less effort	“It’s the easy way.”
	Requires less effort	“It’s easier to catch.”
	Requires less effort	“It’s the easy way.”
	Requires less effort	“They use it because of the poverty! And they can get more fish.”
	Desperation	
	Desperation	“Because of the poverty and there are no other alternative jobs”
	Desperation	“It depends, if my family has no food, I will use dynamite to get my family food.”
	Desperation	“Because of the poverty, they need more fish.” (+1)
	Desperation	“Maybe because of the poverty, they need to have something.”
Decabobo	Do not know	“I am afraid to use it [illegal gears], I don't know why others use it. The small fish are affected and it's useless because you cannot eat them and they die.”
	Prerogative	“Because it's their choice.” (+2)
	Prerogative	“It’s their choice.” (+1)
	Desperation	“It's hard to live maybe. They use it to get more. If you don't have money, you don't have a choice. You use it even if it's prohibited.”
Dimipac	Desperation	“Because of the need to do it for livelihood.” (+1)
	Desperation	“They use illegal methods to get by.” (+2)
	Desperation	“We do illegal fishing because of the need for more fish. It’s the easiest way.” (+8)
	Requires less effort	

The most recurrent theme drawn from the responses, including secondary participants referenced a reduction in expended personal effort and/or an increase in monetary gain, in other words, making the job easier. Desperation via poverty and/or lack of livelihood options were used as a justification for the use of illegal gears. Five interviewees felt that choosing illegal gears was a prerogative of a fisherfolk. One respondent could not explain why others use it and was the only participant to associate environmental degradation with the use of illegal gears. 'Desperation' was the only theme common to all three sites. 'Reduction in effort' as a theme was reported in both Victory and Dimipac, while 'prerogative' was limited to Decabobo as 'obeying orders' was a phenomenon specific to Victory.

Comments from two interview sessions, representing a total of ten interviewees, provided first-hand accounts of their use of illegal fishing methods. During one of these sessions in which the interviewees had previously stated they only fished when they felt it necessary, I noted in my journal that the use of illegal fishing seemed contradictory, as the respondents had previously stated that the "desire to fish" was a variable in their actual fishing effort.

Finally, interviewees were asked if there were any other issues affecting the fisheries or marine environment in general. In total 12 interviewees stated that they were unaware of or did not know any other issues affecting the marine environment. Participant responses varied slightly by research sites. This is partly a result of site-specific issues. For example, five Victory interviewees identified the fish pens as negatively affecting the marine environment and one Victory respondent stated illegal gleaning as having a negative impact. There are hundreds of fish pens in the lagoon between Bolinao and Santiago Island. There have been a number of fish kills associated with the malpractice of the mariculture facilities (San Diego-McGlone et al., 2008). Correspondingly, in Victory, the near-shore marine environment is characterised by a sandy lagoon. In the other two research sites, the near-shore marine habitats are more reef-based and are characterised by live reef, reef rubble or volcanic rocks. These benthic differences account for the difference in gleaning practices and implements. Perceived issues affecting the marine environment are summarised in Table 4.9; the site-specific issues are not presented. Relevant responses from other parts of the interview were included in this analysis.

For example, when three interviewees were asked how the fisheries had changed in the past decade, one respondent stated, “it’s the resort owners, they come here and ruin the fisheries.” As this response is, in effect, an answer to the issues affecting the marine environment, it was grouped as an issue affecting the marine environment and was coded and themed under outsiders.

Table 4.9: Issues Effecting the Marine Environment

Location	Illegal fishing	Natural calamities	Outsiders	No other issues
Victory	11	0	1	6
Decabobo	0	0	3	3
Dimipac	14	12	0	0

Illegal fishing was mentioned by most. Specific references were made to fine mesh nets, cyanide, dynamite and also included two references to hand rake implements used for gleaning. Natural calamities included typhoons and landslides.

#### 4.3.3 Synopsis

The data presented in this section sought to establish a perception-based understanding regarding fisheries health, fisheries management and impacts to the fisheries in response to the first two research questions concerning fishing livelihoods the state of the fisheries and fisheries. These results are important in this research as they, not only provide a baseline from which a need for diversification from fisheries livelihoods can be drawn, but also, provide a baseline for the measure of the current systems used to disseminate information to remote fisherfolk. Thus, the outcomes of this research will be dependent upon the understanding of the current state of the fisheries and the overall efficacy of the current management strategy in remote fishing communities. Having established a baseline for information surrounding the fisheries, the following section uses the data to address tourism as a potential livelihood strategy.

#### 4.4 Tourism awareness

There are many drivers for livelihood diversification in the fisheries (Martin, Lorenzen, & Bunnefeld, 2013). While many of these are not well understood, this research focused on the viability of livelihood diversification opportunities, specifically tourism. To document this, participants were asked questions concerning their overall awareness and understanding of tourism. This section presents results relevant to the third research question that sought to document and measure participants' perceived awareness of tourism and their general knowledge of the sector.

##### *4.4.1 Participant understanding of the term "tourism"*

Before interviewees were asked their opinions or perceptions about tourism, they were first questioned about their familiarity with the term "tourism." The goal behind this question was to identify a level of exposure to the concept. The majority of results included a basic yes or no response with some respondents stating some level of familiarity with tourism. These results are depicted in Table 4.10.

Table 4.10: Participant Understanding of the Term "Tourism"

Research site	Declared full or partial understanding	Declared no understanding
Victory	16	5
Decabobo	1	6
Dimipac	12	2

In some cases, respondents that stated a familiarity with the term tourism provided additional explanations. These voluntary explanations of tourism demonstrated confusion about the term, rather than a clear understanding of the term. For example, a Victory interviewee stated, "tourism is related to the environment. I have some ideas about tourism. In Baguio there are foreigners there because of climate; the Koreans [visit there] and also in Manila." As there was



some confusion in the elaborations, the responses from participants who stated full or partial understandings were combined.

#### 4.4.2 Exposure to tourism

To expand on participant understanding of the term tourism, those participants who declared a familiarity with the term were next asked how they came to know the term. Results are presented by themes in Table 4.11.

Table 4.11: Themes Indicating Exposure to Tourism

Themes	Number of respondents		
	Victory	Decabobo	Dimipac
Experiential exposure	6	0	15
Media exposure	2	0	0
Social exposure	2	0	0

Interviewees claiming experiential exposure included those who had travelled or those who had received visitors either directly or indirectly observed visitors in their community.

Experience was the most common theme appearing in both Victory and Dimipac. In Dimipac, an interviewee speaking on behalf of his family (11 people) explained, “we learned [about tourism] through travelling. We stayed in Port Barton where the tourists are.” Television was the sole form of media listed by participants. Social exposure included communication sources from neighbours and from the municipality. Due to a lack of understanding of tourism, no themes emerged from Decabobo. Only one interviewee in Decabobo claimed some understanding of the term tourism; this participant explained, “the word tourism is the word that is helping the people.” He further explained that they help the different *barangays*. He was unable to explain how he learned about tourism, and, therefore, his response was not represented in the Decabobo data presented in Table 4.11.

#### 4.4.3 Movements of participants

Although none of the participants identified their own travels as a form of tourism, to document additional exposure to the concept, participants were asked where they had travelled. Results are presented in Table 4.12.

Table 4.12: Places Travelled

Location	Places travelled			
	No travel	Another province	≥ 2 provinces	Internationally
Victory	0	8	10	1
Decabobo	6	1	0	0
Dimipac	0	16	0	0

Foreign travel was, for the most part, completely unknown to participants. Only one man from Victory had travelled internationally to Singapore as an overseas worker. All of the Victory interviewees had partaken in domestic travel to at least one other province. However, six of the seven interviewees in Decabobo had not travelled outside of their home province. In Dimipac, all of the participants had travelled to one province. Eleven of these interviewees specifically cited emigration from another area to Dimipac as the reason for travel.

#### 4.4.4 Feelings toward visitors

The high occurrence of experiential exposure to tourism combined with the reported places of travel provided a foundation for the next question that addressed feelings towards visitors. In addition, it is assumed that the concept of visitors is something familiar to the interviewees, and, therefore, that this question was well understood. Furthermore, a similar question that specifically asked about feelings towards hosting tourists was asked later in the interview. It is understood that through the other lines of inquiry, participants became more familiar with the idea of tourism, thus, contributing to and improving the trustworthiness of the responses. The responses from the two questions fell under the same major themes. To improve

trustworthiness of the data and to add depth to the data, the responses were combined. In the case where a single respondent provided identical responses, these responses were not duplicated, but instead counted as a single response. In the cases where information spanning multiple themes was collected from a participant, such responses were counted as separate responses.

Themes drawn from participant responses were grouped under general effects of negative, indifferent and positive. As some respondents provided reasons that fell under multiple categories, the results are presented by responses rather than by respondent. In some cases a single participant's response were considered as representative of others present in the interview groups. Participants represented by the responses of others are indicated in parentheses. These results are presented as in Table 4.13.

Table 4.13: Feelings Towards Visitors

Negative effects	Number of responses			Indifferent effects	Number of responses			Positive effects	Number of responses		
	Victory	Decabobo	Dimipac		Victory	Decabobo	Dimipac		Victory	Decabobo	Dimipac
Changes culture	0	0	1	Indifferent	0	3	5	General happiness	10	4	3
			(+1)				(+1)			(+1)	
								Change of pace	13	2	1
									(+1)	(+1)	(+8)
								Feelings of pride	5	0	0
								Improve livelihoods	2	0	3
											(+9)

*Note.* The numbers of participants (primary or secondary) that were represented by a single narrative response have been denoted in parentheses.

Two elderly women in Dimipac, who were considered secondary participants, conveyed hesitation about the effects of visitors on culture with one stating:

The tourism affects our community and culture. Most of the tourists go to the dance place in the community. They wear shorts and the tradition is more formal. They should wear pants or skirt, but the young generation has changed. We see lots of foreigners wearing bikinis. Before it's not good to look at them, but now it is commonplace.

While this response describes an acceptance to the change, it identifies a discomfort associated with changes resulting from the presence of outsiders. I reflected upon this in my journal expressing concern about my wardrobe on that day (shorts). However, in hindsight, I do not feel this comment was in any way directed at me, or that my attire evoked this response from the participants, as I was dressed more like the participants than not.

Participant responses grouped as indifferent included those that said, “we feel nothing.” Additionally, another participant noted the racial differences of visitors, explaining, “those are the white people. Those are the people who have white colours and we do not. It's like that. They are white. It's ok if they come to visit.” The interviewee stated the same sentiment only towards Filipino visitors. Another participant stated that although there was tourism nearby, they did not feel its effects. Yet another interviewee, when asked to expand on if he was at all upset by the tourists, responded saying “they [the visitors] are humans; they want to enjoy.” In such cases when there was no indication of positive or negative feelings, these responses were classified as indifferent. Indifference was not reported from Victory participants.

With the exception of one comment representing two secondary participants, all other interviewees reported feelings toward potential visitors as either indifferent or positive. Many reported a general happiness at the idea of welcoming a visitor. Some participants provided justification to the feelings of happiness. As one explained, “we are happy because new faces come here.” The abilities to see new faces, meet new people (as well as potentially find a spouse) and hear news were themed as a ‘change of pace.’ This break from the day-to-day routine was the most common response. One participant in his early twenties speculated on a

chance at wealth and love saying, “it's ok for them [the tourists] to come. We can marry a tourist; jackpot – then you get the dollars!” This statement was said partially as a joke, but it is also recorded as a true representation of the social possibilities associated with visitors. Pride was a sentiment mentioned solely by Victory fisherfolk. Another nuance in the data that was limited to the Victory research site was mention of my personal appearance. Four men specifically stated that they would welcome visitors that looked like me. These responses while included under ‘change of pace’ were coded separately as masculinity.

Other respondents associated visitors with improving livelihoods through infrastructure or diversification. Specific mention was given to new opportunities such as being able to sell products to visitors or hire out boats. One respondent in Dimipac referred to the traffic from the nearby airport and its positive effects on the town, while another participant felt that the tourism development would result in livelihood improvement projects for the community. One participant referred to all of the positive effects of visitors, stating:

They [visitors] are beautiful. I am happy and proud because we expect the unexpected. We think foreigners will help the livelihoods by giving some projects and help uplift the economy and financial status. There are only a few foreigners coming. We want to see new faces, new looks, a new colour, and make new friends. In these *barrios* [neighbourhoods] we just look at each other. Every day, every time, it's the same face.

#### *4.4.5 Existing and perceived tourism assets*

In a following attempt to explore interviewees’ awareness of tourism potential in their local area, participants were asked about local tourist spots or attractions. These results are presented in Figure 4.10.

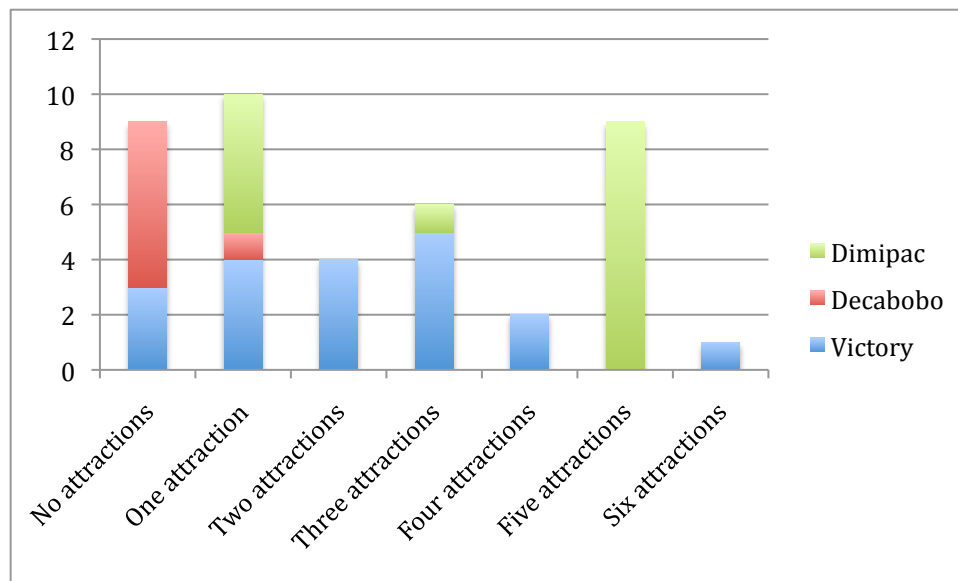


Figure 4.10: Number of participant-identified tourist attractions.

In all three locations there were nearby and well established tourism destinations. The Bolinao tourism map (see Figure 3.3) is not considered a comprehensive map; however, in addition to accommodations and resorts, the map lists six attractions. A Boolean search of “tourism maps of Coron” (tourism destination closest to Decabobo and Dimipac) provides multiple results comparatively. For example, the clam farm, a UPMSI project, is just offshore of the northeast coast of Santiago Island. This attraction would be easily observable and reachable by those partaking in vessel-based fishing efforts. In Decabobo there are no specific attractions; however, well-developed, high-end resorts (e.g., Club Paradise, El Rio Y Mar) are located on nearby islands less than 10km away. On Dimipac Island, the coastal waters are visited sometimes daily, by diving tourist operations from high-end resorts.

Some participant responses added depth to the data beyond a simple list of tourism sites. A Victory woman explained her lack of familiarity with tourism attractions saying, “there is no time to visit the spots in Bolinao, so I don't know what are the other tourism spots on Bolinao.” Two female elders who joined as secondary participants in Dimipac reported tourists visiting the “dance place” in the community. While it is clear that this statement refers to male visitors, it unclear what type of tourists this statement references (e.g., foreign or domestic).

To expand on the idea of tourist attractions, participants were asked to describe what potential tourists would like to see if they arrived at each of the respective research sites. This question was sometimes explained by shifting the conversation to first person and asking, “if I was a tourist, what would you show me?” Responses are organised as narratives and by research site in Table 4.14.

Table 4.14: Perceived Potential Existing Tourism Opportunities

Location	Number of respondents	Gender	Theme(s)	Sub-theme(s)	Participant identified tourism opportunities
Victory	2	F	Social	Livelihoods	“They would learn about different sources of income, not only fishing but also other activities in the area. We are living in a barrio place. It is a small place too far from the municipal town. The food, the fish, it is fresh fish, not spoiled fish.”
				Culture	
				Food	
	2	M	Social	Food	“We would give them fresh fruits. And show them [the tourists] that Victory is a quiet place.”
				Culture	
	1	F	Social	Culture	“I don’t know. I will introduce you to the other people here.”
	1	M	Social	Livelihoods	“Mat weaving.”
	1	M	Social	Culture	“The people here are friendly and hospitable. If you come here, I will show you our character and hospitality.”
				Livelihoods	
				Projects	
	(+1)	(+F)	Environmental	Projects	“The sea ranch, mat weaving and the shells.”
				Fauna	
				Livelihoods	
	1	M	Environmental	Fauna	“The clams, the sea cucumbers, shells, and dried fish.”
				Projects	
				Food	
	2	M	Environmental	Scenery	“The white sand beach. And dried fish you can taste it.”
				Food	
				Culture	
			Environmental	Scenery	“I don’t know, maybe companionship. Living and laughing together. Also the white sand beach and the Island.”
				Projects	
				Projects	
	1	F	Environmental	Scenery	“A clean environment.”
	1 (+1)	M, (+F)	Environmental	Scenery	“We will show the wonderful sea of victory, we will swim! We will show you the white sand. And take you to a swim spot with a huge rock on an island. <i>How do we get there?</i> On the banca!” At this point the wife brought three cowrie shells and said, “For you, souvenir!”
				Fauna	
	1		Environmental	Scenery	“The sea. The beach.”
	1	M	Environmental	Projects	“The mangroves.”
	1	M	Environmental	Fauna	“I don’t know. I could show you shells.”
	1	M	Environmental	Projects	“The marine management projects. Our projects, sea cucumber, and mangroves that we are planting.”
	1	M	Environmental	Scenery	“The beach.”
	1	M	Unknown		“Anywhere and everywhere. I have no idea.”
Decabobo	1	M	Environmental (1)	Scenery	*Laughing* “Nothing! <i>What about the ocean?</i> “I don’t know, perhaps.”
	2	M, F, F	Environmental (3)	Scenery	“The ocean.”
	2	M	Environmental (1)	Scenery	*Laughing* “Nothing.” <i>How about the ocean?</i> “Ok, the ocean.”
	1 (+1)	M, (+F)	Unknown (2)		“Nothing.” <i>How about the ocean?</i> “Nothing, we don’t own the ocean.”
Dimipac	2	M	Environmental	Scenery	“Just the scenery.”
	(+1)	(+F)	Environmental	Fauna	“They [tourists] want to see the corals, but some parts are good but some parts are not good because of the dynamite fishing.”
	9 (+2)	M, (+F)	Environmental	Scenery	“They are interested in the beautiful place. Mainly the ocean.”
	3	M	Environmental	Scenery	“They would be interested in dugong diving, beaches and whale sharks.”

Note. (+F/M) indicates the presence and gender of secondary participants.



Two main themes emerged, environmental and social. In general, responses coded as 'social' included potential tourism assets associated with the participants' daily ways of life, such as the community culture, the local cuisine and the various livelihoods. This theme was limited to Victory. Responses falling under the theme 'environmental' mainly focused on the scenery, such as the beach or near-shore marine environment and the local fauna. Environment was a theme found at each of the sites. However, the sub-theme 'projects' was again limited to Victory. Responses coded as such, referred to environmental improvement/conservation projects.

The depth of the responses varied from simple responses such as the name of a place, to more elaborate responses, in which it was apparent that the interviewees were imagining the possibilities. The narratives have been presented with the corresponding themes and subthemes as they are thought to provide necessary justification (both on behalf of the participant and the researcher) thus, offering a foundation for categorisation and improving the trustworthiness of the data.

#### *4.4.6 Synopsis*

This section has presented the results concerning perceptual awareness of tourism by participants. These data create a baseline of tourism awareness that will serve as a foundation for the next section and later for the discussion about viability of tourism in remote fishing communities. The next section builds on the stated awareness by presenting results based on the potential perceived effects of a tourism livelihood on remote fishing communities as identified by members of those communities.

### **4.5 Perceived effects of tourism on livelihoods**

This section presents results based on interview questions that concern the potential environmental, social and economic effects of tourism development as a livelihood strategy for remote fishing communities, thus, addressing the fourth research question. These results are perception based and offer a phenomenological account of the perceived risks and benefits of a

livelihood shift toward tourism. It is well established that tourism development can result in environmental conservation or destruction or a combination of both (Cater & Cater, 2007). What remains relatively undocumented is how such changes are perceived by those who are directly affected, in this case, artisanal fisherfolk. Combined with the results from the previous section, this section will contribute to the latter discussion on the viability for tourism as a development strategy for remote artisanal fishing communities.

#### 4.5.1 The environment

To document participant awareness of potential effects from tourism development on the marine environment, participants were asked how the fisheries and the marine environment would be affected by tourism. It is important to note that neither a specific kind of tourism, nor an actual intensity (e.g., opportunistic, seasonal, year-round) of tourism was mentioned at any time during the questioning. This was left up to the interpretation of the participants. Results regarding the potential environmental effects of tourism are presented in Table 4.15.

Table 4.15: Perceived Costs and Benefits of Tourism on the Marine Environment

Location	No effect	Positive effect		Negative effect	
		Economic	Environmental	Social	Environmental
Victory	14	1	0	0	0
Decabobo	6	0	0	0	1
Dimipac	2	0	4	9	0
Total	23	1	4	9	1

Interviewee responses were grouped into three general themes, 'no effect,' 'positive effect,' and 'negative effect.' Comments coded under the theme 'no effect' included literal statements of "no effect." While it was expected that the responses to the question would focus on environmental effects, participant responses strayed from the topic to include other non-related social and economic effects. Therefore, positive and negative effects were sub-divided

into sub-themes 'economic,' 'environmental' and 'social effects.' These were reported under each theme only when mentioned.

From the results it is apparent that over half of the participants associate tourism development with having no effect on the fisheries or marine environment. Of the 23 interviewees who stated tourism as having no effect on the environment, only one offered an explanation beyond 'no effect' saying, "the visitors are just looking or visiting and they do not destroy the environment." In contrast, all participants who indicated a specific effect, either positive or negative, offered corresponding justifications. For example, the single interviewee whose narrative was coded as a positive economic effect stated, "sometimes if there are visitors here in Victory, we are happy, because they can serve as an extra income. If we catch fish, the visitors will buy it at a higher price."

The four participants counted as stating a positive environmental effect, stemmed from two comments. In one case, two Dimipac participants agreed with a representative comment from a third participant, "tourism is an advantage because the tourism industry will naturally protect the marine environment." However, this respondent did not expand on how tourism would provide protection. The fourth participant comment coded under a positive environmental outcome arose in response to a later question about its effects on the community. He stated, "tourism has no negative effect on the environment. It's like ecotourism, so it is not bad." This comment was interpreted as being a perceived positive effect, since the participant clarified that a negative effect was untrue. The specific reference made toward ecotourism limited the ability to interpret the comment as I failed to seek further clarification on this comment. It was not clear if this participant was assuming all tourism development was ecotourism, nor was it clear to how he defined the term ecotourism.

One participant from Decabobo identified tourism as having a negative environmental effect stating, "resort owners come fish here and ruin the fisheries." In this case the actual causative factors of the resort owners causing harm to the environment were not clear. The interviewee, though asked, was unable to expand on his comment. A similar sentiment was documented

from a participant group in Dimipac, where one of the nine participants explained that they were not allowed to fish near the private resorts. This was coded as a negative social impact rather than an environmental impact as the behaviours of the fisherfolk were the variable of change rather than the fisheries.

#### 4.5.2 *The community*

While responses from the previous question included mention of social effects, the next question explored the perceived effects of potential tourism development on the community. Specifically this question sought to define the social benefits as well as potential ethical risks (e.g., changes in culture, prostitution) as understood by fisherfolk. Results are presented in Table 4.16.

Table 4.16: Perceived Costs and Benefits of Tourism on the Community

Location	No effect	Positive effect	
		Economic	Social
Victory	9	3	2
Decabobo	7	0	0
Dimipac	5	0	9
Total	21	3	11

Participants did not report any potential negative effects on the community associated with tourism development. Again, the most common response was that of potential tourism development having “no effect.” Similarly, three participants responded as not knowing how or if tourism could potentially affect the community. Three participants were unable to answer. The potential positive economic effects were seemingly well understood. As one participant said, “the foreigners will rent the boat to go to giant clams, sea ranch and the sanctuary.” Others felt that tourism development would bring “projects” (e.g., development programmes targeted at the fisherfolk) and that visitors would bring “support” (e.g., money) from their

respective countries. Positive social effects included a fun atmosphere associated with visitors, the chance to share their place and the ability to see new faces. As one woman said:

I remember when we were kids; we were fascinated to see foreigners. We loved to see foreigners. I cannot explain why we were star struck. I guess we were amazed that someone from another part of the world would come here.

#### *4.5.3 The economy*

Although the economic costs and benefits of tourism were addressed in some of the previous responses, in attempt to collect the perceived economic effects and chances to fishing livelihoods, participants were asked the potential effects of tourism on their livelihoods. Responses are summarised in Table 4.17.

Table 4.17: Perceived Costs and Benefits of Tourism on Fishing Livelihoods

Location	No effect	Positive effect
		Economic
Victory	5	9
Decabobo	6	1
Dimipac	14	0
Total	25	10

Though over half of the participants cited tourism as having no potential effects on livelihoods, not a single negative response was recorded. Two participants, one from Victory and another from Decabobo felt that they would benefit economically from tourism by expanding their market for selling fish or fish products. One Victory participant felt that the municipality could possibly include tourism as a project to stimulate their economy. The remaining seven participants answered simply that tourism would be of economic benefit to their livelihoods. No further explanation was provided. In conclusion, the participants were asked about their willingness to be involved in tourism. Results are presented by location in Table 4.18.

Table 4.18: Willingness to be Involved in Tourism as a Livelihood

Location	Desire involvement			Undecided
	Yes	Social	Economic	
Victory	7	2	7	2
Decabobo	2	0	1	4
Dimipac	5	0	9	0

Though some participants were undecided, no participants stated an unwillingness to be involved in tourism. Respondents classified as being undecided fell under two categories that differed by location. Those from Victory stated that they would be willing to be involved depending on the conditions. Both of these respondents noted their household's commitment to the fishery. As one woman said:

My husband is a fisher so he cannot change fishing, but if there are opportunities for me, maybe because I can augment the income with what I sell, tourism would provide more opportunities for me to sell my sidelines. Otherwise I am a full time Mom.

All of the Decabobo participants classified as undecided stated that they would like to be involved, only if the job was easier than fishing. A representative comment describing this came from a man who said he would like to be involved, "if it's a nice job, one that is not hard and if it's similar or related to fishing."

The majority of interviewees stated a positive desire to be involved in tourism. Common to all three sites were responses that were a straightforward "yes," with no further explanation. The social benefit of tourism in response to the perceived impacts on livelihood was a phenomena limited to Victory. It is noted that in both of these cases, the respondents additionally referenced an economic benefit. As one participant expressed:

I would love it. I could have new friends. Tourism would affect my life because I could see some beautiful faces and I will be happy. Tourism would benefit us as a family. We could rent our boat to take people to the sea ranch.

Though there was no social benefit stated from participants in Decabobo or Dimipac, interviewees from both locals felt they would benefit economically from tourism. Specifically, a secondary female participant from Dimipac spoke on behalf of nine others noting the potential benefit of livelihood diversification. She said, “we want to be part of tourism so we have an alternate source of income if given the chance.”

#### *4.5.4 Closing the interview sessions*

To conclude each interview session, participants were asked if there was any additional information they wanted to share or if they had any questions to ask. Nine participants from Victory responded to this; however, no additional responses were collected from Decabobo or Dimipac. This was interpreted as a result of increased exposure to and, therefore, comfort with visitors in Victory, rather than a more notable difference in the participants. These comments are presented as themes alongside the narratives in Table 4.19.

Table 4.19: Voluntary Responses from the Interview Sessions in Victory

Gender	Theme	Response
Female	Hope	"Come back again."
Male	Hope	"I want you to come back again. I am thankful for you coming."
Female	Hope	"What is the purpose of the interview?" [I explained the research goal of trying to understand access points into tourism for fisherfolk]. "I am very happy that your research is very good and we are expecting that this research will be successful so that tourism will start here to help our livelihoods and family to add more income."
Female	Pride	"We are proud of our dried fish products. Some tourists come to buy our products. And there is no red tide here. The marine environment here in Victory is good because there is no red tide, but the major problem is fish pens. The fish pens are owned by the officials and they are corrupt."
Male	Pride	"I am happy because you are here visiting our <i>barangay</i> . A new look, a new face. We are happy you are here."
Male	Hope	"On the record, if it's God's will, the Barangay Victory needs more help. We are a very poor <i>barangay</i> . We want more opportunities here for simple entrepreneurship. We want help from those who have ideas to uplift the economy."
Male	Masculinity	"Are you married?" *laughing*
Male (+F)	Pride	"We are happy because you visited us. And we are proud because we met other people who we did not know. We are lucky!"
Male	Masculinity	"Ooh lala." (In reference to my appearance)

Voluntary responses, although unplanned and largely unsolicited, are important to the research. Most of the responses fell under two emergent themes of hope and pride. Two of the comments were essentially sexual advances toward me, and thus, classified as acts of masculinity. Gender was included as a factor as the more in-depth responses that indicated an understanding of both potential tourism access points and the research, in general, came from women.



#### *4.5.5 Synopsis*

In summation, the results presented in this section have summarised the data from the fisherfolk interviews in response to the four research questions concerning fishing livelihoods, the effects of fishing on the marine environment, tourism awareness in remote fishing communities, and the perceived effects of tourism development. The data taken from the fisherfolk interview sessions portray the realities of members from remote artisanal fishing communities within the Philippines. The next section of this chapter is dedicated to providing additional evidence about the viability of tourism as a livelihood diversification strategy. This is done through the analysis of the key informant interviews. Bringing in these data from additional stakeholders improves the overall trustworthiness of the data by allowing for further interpretation, comparison and discussion of the data, including limitations and future implications in the following chapters.

#### **4.6 Key informants**

Key informant interviews were collected following the conclusion of the fisherfolk surveys. The selection of key informants can be considered pragmatic as various stakeholders emerged throughout the course of the research. However, in an attempt to provide a holistic representation of stakeholders, representatives from various fisheries management sectors, as well as representatives from the tourism industry were identified and reviewed prior to selecting key informants. Five persons were identified as formal key informants representing various sectors (see Table 4.20). The structure of the key informant interview was similar to that of the fisherfolk interview and for the most part relevant questions remained unaltered (see Appendix 8).

Table 4.20: Key Informant Information

Key informants	Sector	Age	Current residence	Place of birth	Languages spoken (mother tongue in bold)
Alpha	Non-Filipino tour operator*	45	Manila and Busuanga, Philippines	USA	<b>English</b> , Spanish,
Bravo	Filipino tour operator	29	Manila, Philippines	USA	<b>English</b> , Tagalog
Charlie	Government fisheries employee	28	Cebu, Philippines	Philippines	<b>Bisaya</b> , Tagalog, English, Malay
Delta	International aid agency fisheries employee	58	Bangkok, Thailand	United Kingdom	<b>English</b> , Thai, Lao, basic Vietnamese, basic French, basic Benghari
Echo	NGO fisheries employee	57	Manila, Philippines	Philippines	<b>Tagalog</b> , English, German, Ilonggo, Bisaya

*Note.* The non-Filipino tour operator also heads an NGO dedicated to marine conservation.

Though based on representation of previously justified sectors, all of the choices of key informants can be considered pragmatic. Representation of stakeholders included a Filipino and a non-Filipino leader of separate projects involving surf tourism developments within the Philippines, a BFAR government employee, a previous employee of an international aid agency who worked in the Philippines and elsewhere in Southeast Asia, and finally, an employee from the Filipino branch of an international NGO. All key informants had experience working directly or indirectly on livelihood improvement programmes in remote coastal communities. Three of the five key informants representing the fisheries sectors had professional experience in fisheries management, while the non-Filipino representative from the tourism industry could be considered familiar with current fisheries management in the Philippines and internationally.

Participant age ranged from 28 – 58 years; four of the five key informants were male. Key informants were given the option to be identified or choose a pseudonym. However, due to potential ethical risks associated with the data, and to protect participant anonymity, including gender, each key informant was assigned a name based on the first five names assigned to the phonetic alphabet.

While the worldviews of the key informants would be difficult to compare, participants shared some important characteristics. Each key informant had travelled internationally and had earned at least a bachelor's degree. The representation from both key informants from the tourism sector was unique, not only in the representation of surf-riding tourism (a limited sector within the Philippines), but more specifically in that the projects of both key informants are located in remote fishing communities and have been or are being designed with livelihood development components for the surrounding communities. It is noted that while there are many types of coastal tourism beyond surf-riding tourism within the Philippines, such sectors are unrepresented in this sample. In the near vicinity of all three research sites, the other types of tourism included larger-scale resort tourism. Additionally, my familiarity with the surf-riding tourism sector and ability to experience both tourism locations first-hand, combined with similarity of scale of and approaches to tourism by the two key informants allowed greater depth in the data through experiential and comparative analyses.

A brief description of the professional backgrounds and the projects associated with each of the key informants is provided. These descriptions attempt to offer a personal foundation for the perceptions and justifications of each key informant.

#### *4.6.1 The participants*

##### *Key informant Alpha – foreign representative of the surf-riding tourism sector.*

Alpha is a 45-year-old expatriate, long-term resident of the Philippines. Alpha is the founder of and serves as the managing director of a Filipino-based NGO dedicated to improving marine management strategy and marine conservation. As part of this role Alpha heads the NGO's

microfinance programme that has provided the funds for a small-scale tourism development aimed at attracting surfers. This project is currently being developed and is not yet open to tourists. Alpha holds a bachelor's and master's degree in business and has worked in the tourism sector and in the technology sector. The impetus behind Alpha's involvement in the Filipino tourism sector and ultimately the marine conservation sector was a result from a combination of previous involvement in the tourism sector, personal interests (marine conservation and surfing), realising the potential profitability based on current capacity of the area, and a desire to try to "reinvent the way people manage the resources by aligning the interests of tourists and conservation."

*Key informant Bravo – Filipino representative of the surf-riding tourism sector.*

Bravo was born in the USA, but is a long-term resident of the Philippines. Bravo is 29 years old and Filipino by descent; however, he holds dual citizenship (Filipino and American). Bravo holds a bachelor's degree in economics and Bravo's professional experience includes work in a Filipino NGO dedicated to providing clean, drinking water to communities throughout the Philippines through a microfinance programme. Bravo's involvement in the tourism sector came from travelling and backpacking through Asia. As a result of associated observations, Bravo realised a gap in the industry and felt that "we should make something available in the Philippines that is on the beach and affordable, yet comfortable." Since 2012, Bravo has opened two hostels that offer low-budget accommodations at two different beach and surf-riding destinations on mainland Luzon.

*Key informant Charlie – representative of a government employee from the fisheries sector.*

Charlie is a 28-year-old Filipino national and holds a Bachelor's of Science in marine biology. Charlie also studied aquaculture techniques and has worked internationally on aquaculture projects. Charlie's work experience with the government has included fisheries improvement projects with various livelihood components as well as work with educational programmes designed to improve awareness about marine conservation. Charlie emphasised the

importance of partnerships with NGOs, environmental lawyers and the local government units (LGUs) in achieving conservation outputs.

*Key informant Delta – representative of an international aid agency employee from the fisheries sector.*

Delta is a 58-year-old citizen of the United Kingdom and has over 30 years experience working and living in developing countries. Delta holds a Bachelor's and Master's of science as well as multiple post-graduate diplomas. Delta worked on a regional programme that included fisheries management and livelihood diversification programmes in the Philippines and in five other Southeast Asian countries. In reference to fisheries management and livelihood improvement programmes, Delta noted, "that you can't do these things in isolation. Livelihood enhancement development is so holistic. It's got to be holistic, it takes so much to get people to do something different or new."

*Key informant Echo – representative of a NGO employee from the fisheries sector.*

Echo is a 57-year-old Filipino citizen with experience studying and working abroad. Echo holds a Bachelor's and Master's of science as well as a PhD. Echo has worked in the research sector, served as university faculty and has now been in the NGO sector for over ten years. Echo emphasised the importance of supporting fisheries management with science in order to achieve realistic goals while also noting the consequence of the community's opinions on livelihood diversification. As Echo explained, "they [government] don't even know what is needed. I am working to educate and to build capacity in the bureaucracy in the fisheries agencies to understand better the principles and how to govern and improve the resources."

#### *4.6.2 Synopsis*

These descriptions have provided a brief overview of the socio-demographics of the key informants. Additionally, perceptions in the form of quotes or opinions were added in an attempt to describe the personal approaches as they relate to the subject of coastal management within this research. The following sections summarise key informant findings as

they relate to marine conservation through fisheries management and livelihood diversification strategies.

#### **4.7 Key informant interviews**

In most cases, findings are presented as a whole through direct comparisons. When possible additional comparisons are drawn between the key informant and the fisherfolk data sets. In some cases, differences in characteristics of the sectors create challenges for direct comparisons. For example the experiences of key informants from the tourism sector often refer to a single project, whereas the experiences of key informants from the fisheries sector sometimes to a general approach to multiple projects. In the instances where such characteristics affected the comparisons of the data, the discrepancies have been explained in detail.

##### *4.7.1 Marine management*

Similar to the fisherfolk interviews, key informants were asked to identify the organisations or entities they felt were responsible for marine management and also to identify any existing marine management efforts in their areas of focus. Key informant responses, differed from those of the fisherfolk. Not only did key informants have a good understanding of marine conservation and management efforts, all were involved or had first-hand experience in marine conservation programmes. Responses from the tourism sector representatives were limited to specific project sites, while representatives of the fisheries sector described efforts from their personal involvement in particular project areas, in some cases outside of the Philippines.

The focus of marine management varied according to areas of responsibility of each key informant. For example, the government employee answered by explaining useful partnerships (e.g., with NGOs, environmental lawyers) and the role of awareness education, while the representative from an international aid programme listed the outputs of the project: sustainable fisheries management, safety at sea, post-harvest handling and marketing, enhancement and diversification of livelihoods, improving access to micro-finance and regional

knowledge sharing. The focus of marine management and conservation efforts on behalf of the NGO employee was improving governance in fisheries management through policy reform. Both representatives from the surf-riding tourism sector were directly involved in marine education and conservation awareness programmes such as beach clean-ups, while one is currently in the process of trying to establish legal MPAs in their project area.

To establish a baseline of fisheries governance, all key informants were questioned regarding those responsible for marine management and fisheries enforcement. Further, key informants, where applicable, were asked about the *barangay*'s involvement in fisheries management. On multiple occasions there were displays of raw emotions in response to the issues and challenges associated with the degraded fisheries of the Philippines. Multiple responses included mentions of political corruption and other information that could be considered dangerous and/or incriminating. Further responses sometimes included direct accusations pertaining those in powerful (usually governmental) positions. To protect the anonymity of the key informants, place names, as well as identifying sectors and areas, have been deleted from the data presented below.

All key informants placed at least partial responsibility for marine management and enforcement on the LGUs, as one informant explained, "they [the LGU] keep the national ordinances and then make the specific laws more acceptable at their level." However, in response to the question about marine management, three key informants questioned the efficacy of the system. For example, a key informant explained that their local government fisheries employee has been accused of corruption. It was further explained that, "when asked if there is a problem or crisis in [the project area] he says, 'We currently have no problems and everything is fine.'" The same key informant gave credit to the local tourism resorts for privately protecting their inshore waters and local reefs. A second key informant responded to the same question stating, "no one. In [project area] it's the [deleted] association; they do it themselves." A third key informant explained the tiered fisheries management of the Philippines hinting at its inefficacy, "you have three levels, you have national, provincial, and then you have the local. There are three distinct management units that are, more or less, well

*not* fully coordinated, but that's how it looks [coordinated]." These responses are notable as they reveal perceived gaps in the current management system.

To gain a deeper understanding of the roles and operations associated with fisheries management of the LGUs, four of the key informants were asked to describe the *barangay's* role in fisheries management. One key informant response was missing, as the question was not applicable to the key informant's involvement. All four responses either directly stated or alluded to the role of the *barangay* in marine management not being fulfilled. For example, one informant explained in detail multiple factors influencing the ability to manage the fisheries at the *barangay* level:

They lack the management expertise, the commitment, and they are unwilling to make any sacrifices in terms of restricting their fishing areas. And there is no enforcement; that is probably the number one thing. First, the communities are not behind it [management] and, second, even if the communities were behind it [management], they can't [achieve it] unless they have money or people who are trained in enforcement. Until then, visiting boats [commercial fishing vessels] will come and take from their areas.

Another key informant expressed concerns about the effectiveness of the current management structure stating:

In the Philippines' management design, they [the *barangay*] should be the ones who are really involved, and they should be part of the management. There should be a co-management of fisheries resources happening at the *barangay* level, but whether this is really happening, it is another story of course. So, theoretically, the fisheries management structure in the Philippines should be from the bottom up, rather than a centralised form. Policy should emanate from the local levels.

An important topic that arose from the data about enforcement was personal safety. Though only mentioned by one key informant, it was stated that even when given the authority to



enforce fisheries laws, personal safety (due to potential threats or violent acts to the person or their property or family) becomes an issue which is often linked to corruption.

Perceived challenges interpreted from the key informant narratives that are associated with marine management at the *barangay* level are summarised in Figure 4.11.

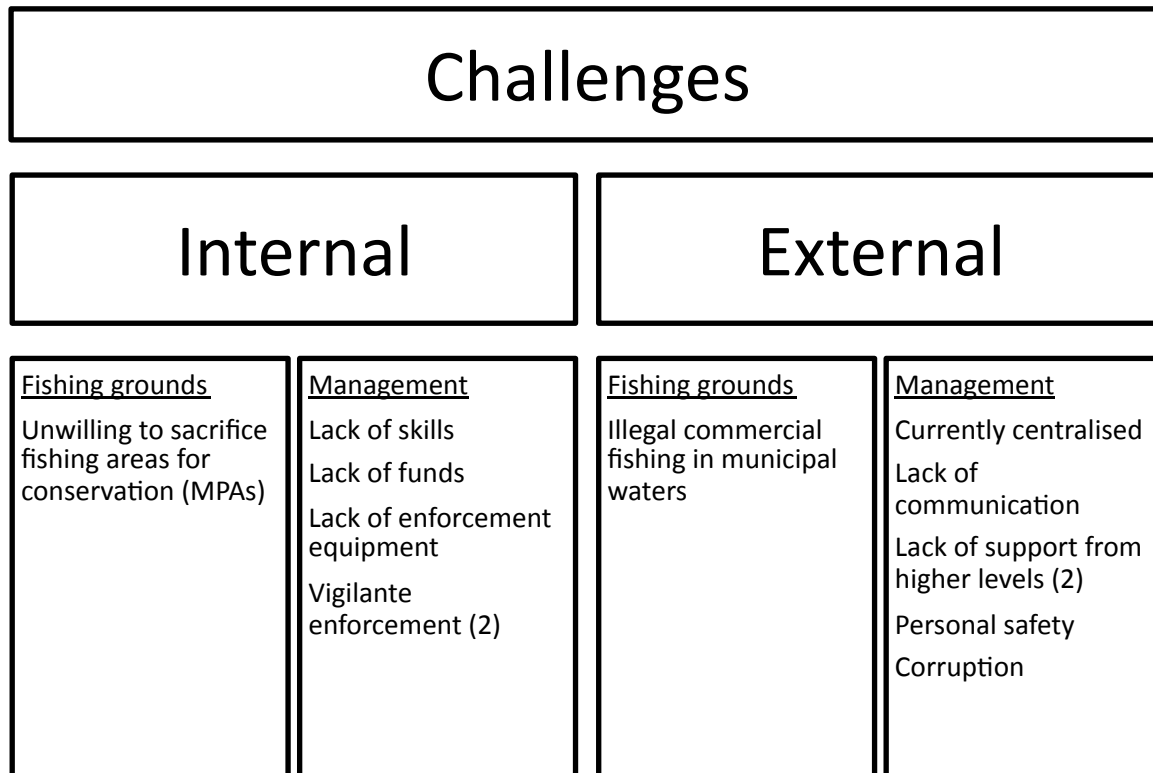


Figure 4.11: Factors influencing the ability to manage the marine environment at the *barangay* level. When more than one mention of the topic occurred, the numbers of responses have been indicated in parentheses.

In the Philippines, active management at the municipal and city level is nationally mandated for any cities or municipalities abutting municipal waters (Philippines Fisheries Code, 1998). The LGU may further create a management council at the *barangay* level. Although it would seem that a fisheries management council at the *barangay* level would be a useful tool, it is a suggestion that is not actively implemented. Two key informants identified the formal and

mandated role of the *barangay* in fisheries management. However, two key informants felt that the *barangay* should have a more active role in fisheries management.

Overall, it was evident from the responses to the questions about marine management that there are challenges within the fisheries management system. While these questions specifically addressed the management systems in the Philippines, other questions during the key informant interviews often elicited responses either directly or indirectly related to fisheries management. Thus, it was interpreted from the data on multiple occasions that frustrations arising from the function of current fisheries management systems, or lack thereof, were present in the responses of all key informants. The nuances of these are discussed in detail as they relate to the various topics presented throughout Section 4.7.

#### *4.7.2 Sustainability of the fisheries.*

It was evident from participant responses that fisheries management in the Philippines faces a multitude of significant challenges. To gain insights from stakeholders on the state and sustainability of the fisheries key informants were asked to describe sustainable fishing methods, illegal fishing methods and further, to elaborate on the challenges surrounding illegal fishing methods. The emergent themes from responses describing factors influencing the sustainability of the fisheries are summarised in Table 4.21.

Table 4.21: Emergent Themes Describing Factors that Influence Sustainability of the Fisheries

Factors	Number of responses
Pressure on the fisheries	4
Management	4
Strategy	3

The theme ‘pressure on the fisheries’ included references to the scale of the fishery as well as the number of people entering the fishery. Some respondents felt that artisanal fishing methods had minimal impact on the fisheries. For example, one key informant stated in

response to which methods of fishing are sustainable, “those outside of commercial fishing; the marginal form of fishing which uses of course the fishing gears that are only hook and line and legal size net.” The number of active fisherfolk was also grouped under this category. As one key informant described:

One of the biggest concerns here is just the numbers of people that are migrating into the areas where we work. And they [the migrants] are so dependent on the ocean. These fisherfolk that are coming from other areas that have been completely depleted, completely wiped out and they are bringing their [destructive] methods to the areas that we are in right now.

Similarly, another key informant stated that sustainability:

Depends on the context of the fishery. The problem within the Philippines is that even if you have traditional hook and line fishing gear, which is supposed to be environmentally friendly, if you don't manage them, if you don't regulate their numbers, they will overfish the populations.

The theme ‘management’ included direct references to fisheries management as well as indirect effects of fisheries management. For example, one key informant explained, “there has got to be a better understanding of how fisheries management principles work. It is not a question of whether this is sustainable or not.” The theme, ‘pressure on the fisheries’ revealed the perceived negative effects of the unregulated entry into the fisheries; two respondents felt that the use of legal fishing gears was enough to maintain a sustainable fishery. Other sub-themes in this category were mentions of enforcement and politics. The mention of enforcement under management specifically referenced the provision of patrol and enforcement vessels as a management strategy to a project area; however, the efficacy of these patrol boats was unknown, as the project did not include evaluative measures for the patrol vessels. An additional challenge associated with fisheries management was political overlap. One key informant summarised the state of many governments in coastal developing nations stating:

The governments are aware that their fisheries are overfished very badly, but they do not have the political will to do anything about it, to actually manage the fisheries. They have a lot of legislation controlling things like gears and seasons and things, but the bottom line is that they don't actually limit entry into the fishery – it's open access and there are just too many fishers, basically, and too many boats.

While only one key informant stated the effects of politics on the fisheries in response to questions concerning the sustainability of the fisheries, each key informant mentioned the negative effects of politics and corruption at least once during each interview session.

Some key informants suggested strategies for improving the sustainability of the fisheries. These responses were themed under 'strategy' and included reducing access to the fisheries through livelihood diversification and improved management of people entering the fishery, as well as enforcing seasonal closures and rotations of fishing areas. The numbers of people fishing emerged again as a major area of concern. Beyond the general challenges associated with increasing numbers of fisherfolk, one key informant described a specific challenge of migrant fisherfolk, "not only do we have to fight the waves of immigrants, but with every new wave we have to change their opinions about conservation, which is for some of the older generations a lost cause." This statement demonstrates a common gap in marine management programmes and highlights the need for long-term and ongoing awareness education in programmes aimed at changing the understanding, attitudes and behaviour of people towards the fisheries.

It was evident through participant responses that all key informants felt that illegal fishing methods were contributing to the degradation of the fisheries. This was a notable, but expected difference between the fisherfolk interviews and the key informant interviews. The differing views of the key informants were most likely a result of them not being dependent of the fishery for their livelihood. When asked why illegal fishing methods were used, six themes emerged, two of which were in common with themes arising from fisherfolk interviews (see Table 4.22).

Table 4.22: Drivers in the Use of Illegal Fishing Gears and Methods – Key Informants

Drivers	Number of Responses
Desperation*	3
Cheaper	2
Habit	2
Degraded fisheries	2
Complacency	1
Lack foresight	1
Requires less effort*	1

*Note.* Asterisks denote themes previously identified from fisherfolk responses.

The theme ‘desperation’ and ‘requires less effort’ were seen in the responses from fisherfolk. As was the case in the fisherfolk interviews, the theme ‘desperation’ included poverty and lack of options. Likewise, the theme ‘requires less effort’ was indicative of the reduced temporal and physical efforts associated with illegal fishing methods. Another benefit to those utilising illegal fishing methods that was identified by key informants was a reduction in costs. This justification is synonymous with a reduction in effort; thereby reducing the time it takes to catch fish, which ultimately reduces fuel costs. Requesting fisherfolk to change to legal gears could require an investment, and as one key informant stated, “to teach them something new would mean a new investment for them and they don’t have the money for that.” The increased cost associated with using or changing to legal fishing gears and methods was not mentioned by fisherfolk and was, therefore, considered a new theme resulting from key informant interviews.

Though some fisherfolk mentioned that illegal fishing was one’s prerogative, or act of free will, none of the fisherfolk mentioned illegal fishing as a result of habit. Two key informants, however, identified ‘habit’ as a driver in illegal fishing. This was described as a simple effect with one key informant stating, “I think they use it because it [illegal fishing methods] is the norm;” likewise, the other key informant said, “it [illegal fishing methods] is what they know.”

Another theme identified from key informant responses is the degradation of the fisheries. While there is some overlap between a reduction in effort and the degradation of the fisheries, these have been separated as themes on the premise that even within a sustainable and healthy fishery, one may still choose to utilise methods that require less effort overall. The key informants' responses were representative of this overlap. One key informant summarised the effects of a degraded fishery stating, "if you can't catch anything, people will resort to something they can benefit from regardless of if it is legal or not." Further, one key informant attempted to justify the use of illegal fishing methods among fisherfolk by suggesting that as a result of a degraded fishery, the fisherfolk have adapted to a diet of smaller and less desirable fish that remain accessible. The complacency with the use of illegal fishing methods for sustenance was explained through the following response:

I think it's because as fish populations are below 10% of their natural population or maybe even 5% of their natural population. All of the larger predatory fish have been wiped out and it is increasingly difficult to catch enough to eat just with hook and line. It is still possible, but it takes a lot more work, and it takes little to no effort to put a net out in front of your house and just go check it for 30 minutes a day. And they [fisherfolk] don't necessarily want to eat a nice big trevally [*Caranx spp.*] fillet. I mean they are OK eating an entire fish, a head and everything that is only two or three inches long.

A final difference between fisherfolk responses and those from key informant interviews was the theme 'lack forethought.' Though only mentioned by one participant, the idea of fisherfolk only predicting short-term effects on the fishery and elsewhere is not unpredictable as the group lives a traditional subsistence lifestyle. This suggestion that fisherfolk were unaware of the degradation they were causing through the use of illegal fishing methods was summarised by a key informant who said, "I think it is a lack of understanding of the long-term impacts of what they do to the resource. I don't really think they [fisherfolk] see that far down the road." This observation is supported in the fisherfolk data set, where many participants felt that their fishing activities were of no consequence to the marine environment.

The section of the key informant interviews that focused on the marine environment and marine management were concluded by asking participants what, if any, other issues were affecting the marine environment. This question was also asked in the fisherfolk interviews. Whereas, the majority of fisherfolk were unable to identify any issues as having a negative effect on the marine environment, this question elicited additional responses from all key informants. One key informant laughed and said, “yeah, you have got everything,” indicating that there were too many issues to describe. Themes taken from the key informant responses are summarised in Table 4.23.

Table 4.23: Additional Issues Affecting the Marine Environment

Issues	Sub-themes	Number of responses
Overfishing	Open access	4
	Artisanal net fishery	
	Live reef fish trade	
	Aquarium fish trade	
Coastal development	Tourism	3
	Industry	
	Farming	
Pollution	Nonpoint source pollution	2
	Marine debris	
Management	N/A	2
Climate change	N/A	1

There was little duplication in participant responses (see sub-themes); however, general themes were drawn from these. This is likely an effect of personal observation or experience rather than unawareness. The theme ‘over-fishing’ included the most subthemes, and in addition to referencing the unregulated entry into the fishery, it also addressed three specific fisheries. The repercussions of the impact of the artisanal net fishery were described as:

Causing the collapse of the herbivore populations, which is now resulting in the corals being completely covered in algae. There is nothing to balance out that; there are no triton horn shells; there are no napoleon wrasses to kill crown of thorns so at times those [crown of thorns] will get out of control in certain areas.

The crown of thorns is the common name for a starfish [*Acanthaster spp.*] that preys on coral polyps. In a healthy coral reef ecosystem, other marine species such as triton's trumpet snails [*Charonia spp.*] and napoleon wrasses [*Cheilinus spp.*] prey on the crown of thorns maintaining an ecological balance in the population. Other fisheries that were mentioned were the live fish trades for both consumptive and hobby purposes. The live fish reef trade is driven largely by Asian markets, which demand live reef fish, most commonly groupers [Serranidae family], for consumption. A global market drives the live ornamental fish trade, with a large demand coming from hobby aquarium enthusiasts. There is a high mortality associated with both live fish trades, due to the methods of collection and handling and also as a result of the stress from transporting live organisms internationally. Illegal fishing methods, mainly sodium cyanide, is commonly used to collect fishes for both types of live reef fish trade. Sodium cyanide stuns the marine organisms; however, its accuracy is limited and a high mortality and by-catch is associated with the method. The live reef fish trade is especially lucrative fetching prices around 6,000 times greater than the traditional fish trade (Fabinyi, 2007). A key informant described the impacts of these fisheries saying:

They [middle men] ship the live fish right out of the airport, but there is completely porous sea borders between [project area] and Manila so they load up offshore in big *banca* boats with thousands of fish for, not only the live fish restaurant trade, but also for the aquarium trade. There is no regulation and there is no enforcement. Most of the reefs down there are probably 90-95% depleted from fish biomass and maybe 80% destroyed on the coral side from the side effects [of sodium cyanide].

Also represented by this statement, lack of enforcement appeared as a causative factor in the degradation of the fisheries. This subject was grouped under the theme 'management.'



Another key informant also addressed challenges with management, more specifically stating the gaps and shortcomings of the management stating, “well, primarily it’s ignorance in the management principles. Very few people in the government bureaucracy really have understood how these things work. They don’t even know what is needed so that’s a huge issue right now.”

Coastal development was a third theme identified as negatively affecting the marine environment. Within this theme, there were three subthemes, tourism, industry and farming. Tourism and industry were similar in that associated impacts were from building development in coastal areas. While the government of the Philippines requires permitting for new developments, one key informant noted, “usually they [the developers] will claim the area before they get permit.” Siltation was mentioned as an effect of farming. *Kaingin*, or slash and burn farming is a common method used in the Philippines to prepare land for farming. While it was obvious that farming is a livelihood, the practice of *kaingin* was described by one key informant to have deeper roots in the culture:

Some people are doing that [*kaingin*] because they want to prepare the land for farming. Other people they only want to prepare a small piece of land, but because it’s so dry the fire just gets out of hand and spreads for hundreds of acres. And I even believe just sitting there watching the fires burn at night, I believe it’s almost like a ritual for the people there, to the light the jungle on fire and watch it burn at night. It’s almost like a campfire; yeah, doing marshmallows over the campfire. It’s that season where we get to smell fire in the air and you get to see it burn. There is no TV and there is nothing better to do.

Two key informants mentioned pollution as negatively impacting the marine environment. One mention of this was drawn from the response associated with the development of industry in coastal areas, while the other mention referred to marine debris entering the ocean directly and via other waterways (e.g., rivers).

The final theme was arising from the data was 'climate change.' This topic is commonly associated with the marine environment as the climate directly impacts the inshore marine environment. A warming event may be catastrophic to shallow reefs, and thus, severely impact the entire coral reef ecosystem.

#### *4.7.3 Tourism and the fisheries*

To gain a better understanding of the potential or existing role tourism in or effect on fishing communities, key informants were asked questions about their experiences and observations of tourism. The questions covered topics including the effects on the environment and social effects of tourism on a community, as well as management issues and other challenges associated with tourism and tourism development. While the topics were consistent throughout the interviews, the structure of questions was adapted to fit the sector of the key informant. For example, key informants from the tourism sectors were asked their general feelings about tourism development in remote fishing communities, whereas, key informants from the fisheries sectors were asked about their perceptions of tourism as a livelihood diversification strategy for fisherfolk. As a result of the various stakeholder representations within the key informant sample, the contributions to these topics were diverse. However, a recurring theme found in multiple topics was the government. Participant responses were coded and themed. The social, environmental and economic effects of tourism were addressed individually; however, these results are, in some cases, presented collectively. Table 4.24 summarises the emergent themes from key informant responses concerning social, environmental and economic effects of tourism as a livelihood diversification strategy.

Table 4.24: Perceived Effects of Tourism as a Livelihood Development Strategy for Remote Fishing Communities

Themes	
Positive effects	Negative effects
Improve livelihoods (5)*	Exhausts resources (7)
Stakeholder cooperation (6)	Creates conflict (5)
Enhance language skills (1)	Cultural change (2)*
	Creates dependency (1)
	Uncontrollable situations (1)

*Note.* An asterisk denotes themes duplicated in fisherfolk responses.

Compared to the responses of fisherfolk, the key informants were able to identify a multitude of challenges associated with tourism development in remote fishing communities. While fisherfolk were able to identify positive benefits of potential tourism development (refer to Table 4.13), their responses were limited to economic (e.g., improve livelihoods) and social benefits (e.g., happiness, change of pace, pride); effects on the environment were not mentioned.

Within the key informant data, concern for the environment was the most common theme associated with the negative impacts of tourism development. All five key informants discussed environmental risks of tourism development; these were grouped under ‘exhausts resources.’ Comments addressed issues including, unsustainable seafood consumption, marine debris, non-point source pollution, and carrying capacities. The comment coded as ‘unsustainable seafood consumption’ was an example of more specific description of resource degradation related to tourism establishments. This was summarised by a key informant’s observations:

I consistently see *lapu-lapu* [grouper] on all the buffets at all these big hotels. So if they’re creating demand for fish that are already being overfished and local fishermen

are now targeting those species so that they can make money from that, then I think they [hotels] are having a negative impact on the fisheries.

The other responses grouped under exhausting the resources were all related to the carrying capacity of an area, or the number of visitors a resource could sustain. Non-point source pollution was reported as an effect arising from an increase in the numbers of people in an area. Marine debris was reported as an effect of mismanagement that may accompany tourism development. Similarly, one key informant mentioned the general impacts associated with mass tourism. The same key informant also mentioned the risk of “loving it [the resource] to death.” Two key informants addressed consequences of the popular whale shark tourism in the Philippines. The whale shark tourism was initially founded with the support of international and national NGOs as a conservation response to shark finning fisheries practices. Programmes were implemented to transition fisherfolk into tourism. This was summarised by one informant who stated:

It used to be a whale shark fishery and then they stopped butchering the whale sharks and they converted it into interaction with the whale shark. It's an example of how fisheries turned tourism can create so much prosperity in an area.

While the industry has been economically successful and nearly eliminated the butchering of whale sharks in this area of the Philippines, other environmental concerns have arisen mainly from mismanagement of the resources and the political pull seen within the fisheries. This progression was summarised by the comment:

Before it [whale shark tourism] was well regulated; you had a specific number of boats and a specific number of people. And at the time when there were many, many whale sharks, the number of boats allowed per day was just thirty. Now you have 120 boats and less numbers of sharks. You can imagine the disturbance on the whale sharks. It's a political decision!

The previous comment was coded under an additional theme, 'conflict,' due to the political interference. The interference of politics and governments, as well as inter-community competition, was considered a second negative effect under the theme 'conflict.' Politics was mentioned thrice and inter-community competition once. Whale shark tourism received the most attention and was used as an example in multiple cases. The additional political references are discussed first. One reference describes the conflict occurring from a typical competition of resources. However, in the example provided by the key informant, a situation where stakeholders are competing for the use or the non-use of the resources is described as follows:

The conflict is always between the economic aspect and the conservation aspect in which many of the environmentalist feeding the whale shark means changing the behaviour of these animals, and people say we are just feeding them we're not doing anything harmful like that. So it's always the conflict because the local government unit always wants the economic side of the business and here comes the environmentalist who wants the entire protection of the animals. They don't want to compromise, it's sort of like that.

Similarly, the second reference to conflict states economics as a driver:

It used to be well regulated, but you see when politicians start intervening and become greedy about tourism revenues, then the whole scenario changes. It's similar to fisheries too! Remove politics from it and you'll have a better-managed livelihood for the people.

However, in this comment, the mention of removing politics was interpreted as to also include a soft reference to a commonly observed strategy in which politicians loosen conservation regulations in order to gain more votes. A similar type of political conflict was explained more explicitly by a third response:

And there are powerful people down there that want to keep anything like that [responsible tourism] from actually happening so they just they don't expose

themselves [their personal misuse of the resource] and say ‘We’re cancelling your project.’ They just quietly put everything on hold until the foreigners go away and then they look at the documents that have been submitted to see if there’s a business opportunity for themselves. So the people who are on the evaluation and approval committees are actually business people who are looking for unexploited natural resources or land values or economic opportunities where they can use their relationships or political clout connections to get it for themselves.

The other issue mentioned which was coded under the theme ‘conflict’ arose from a stated inter-community competition. A key informant summarised a sense of entitlement to the use (or misuse) of the resources, in this case whale sharks:

Other communities try to copy whatever others are showcasing...If they see whale shark in their place, they just say ‘Oh can we put up a whale watching also here and try to compete with the basic ecotourism site?’ It will worsen conservation in that site and people will become more focused on the money than the conservation aspect.

The final mention of conflict again focused on competition for the resource. However, in this case it was an inter-species competition that divides the conservationists and the fishers. While the informant was trying to cite a success story of a tourism shift, the focus instead turned to intra-resource competition:

In areas in Mindanao they shifted the fishers from catching fish to culturing seaweeds. That is a success story, but the unforeseen there, for example in some areas, you have a lot of seaweeds, then you have the turtle grazing on their things [seaweeds] and that is something unforeseen, so people have to drive away the turtles now. That plays a huge problem for conservation, especially those NGOs working on turtles.

A third risk associated with tourism development was loss of, or change to, the traditional culture. ‘Culture’ was the only theme under negative effects that also appeared in the fisherfolk data. Key informants identified cultural risks associated with both foreign and domestic

tourism. Risks associated with loss of culture are important, as culture, in many cases, is a prominent pull factor within many tourism products. The risks of introducing foreigners to remote areas were summarised by one key informant's observations from a situation occurring in Malaysia where:

You see European tourist there roaming around in two-piece bikinis in a Muslim community. And that is something that is really absurd because there were no sets of rules there in the first place when tourism established there. It's sad, but it's eroding something more cultural and that's actually what forms the base of the tourism there, it's culture and history of the people, and tourism should never eliminate those, they should actually be preserved through tourism.

This example highlights the vulnerability of remote communities and demonstrates what can happen without effective risk-mitigation. This type of cultural vulnerability was demonstrated within the fisherfolk, where the only mention of cultural risk came from two secondary participants.

In addition to clashes between foreign cultures, the difference between domestic cultures can also vary drastically. The poverty often characteristic of remote fishing communities exacerbates this divide. This difference in realities amongst Filipino nationals was explained by another key informant who stated:

I think that's the reality; there will be these Manila rich kids that will come down there with their stupid fashion and sun block and their surfboards that they don't know how to ride and they'll think this is Boracay [well developed beach destination in the Philippines] where they can come down and party and be a bad influence on the young people there. It's a risk.

A fourth risk related to the development of tourism was the risk of creating a new dependency. This mention described the risk of a complete shift towards tourism, and, therefore, in

theoretical context was replacing the dependency on the fishery with a new dependency on tourism. The risk in this case becomes directly related to the final risk, 'uncontrollable factors.'

Tourism is dependent on a number of uncontrollable variables (e.g., weather, security, economy, the resource), which when changed may significantly affect those dependent on it. While this theme could include multiple topics (e.g., weather, natural disasters, economic collapse, terrorism), the only one mentioned was security. This key informant provided an example from an area within the Philippines where travel for many foreigners is not advised due to safety concerns.

Overall, what differed the most from the fisherfolk data was the emphasis placed on potential environmental risks associated with tourism development. Key informants identified multiple environmental risks, as well as potential challenges and risks associated with the social and economic effects of tourism development. Alternatively, the perceptions of risk among fisherfolk were limited to a potential negative social change associated with the loss or loosening of community culture.

A similar discrepancy was seen between the perceived benefits of tourism development of the key informants and the fisherfolk participants. While fisherfolk placed the most importance on the social benefits of tourism development, key informants placed the most importance on the potential for improved livelihoods. All five key informants identified the potential livelihood improvement as a push factor in tourism development. Some participants provided examples of livelihood improvements resulting from tourism, while others listed potential opportunities for fisherfolk associated with tourism growth. For example, one key informant noted that by only providing limited tourism services (e.g., accommodation only), it gave the surrounding community a chance for growth in tourism-associated business (e.g., rentals, foods, guides). A different strategy listed was to provide micro-finance loans and business training, while also providing benefits to a community in the form of infrastructure (e.g., solar power, water).

Three key informants felt that tourism would be of general economic benefit; as one said, "no matter how you slice it or look at it, it will improve economic activity." One of these participants



added that, in addition to providing a more lucrative livelihood than fishing, tourism required less overall effort observing, “many fishermen opt not to fish because it is so much more laborious than tourism.” This statement exposed a discrepancy in the data as fisherfolk were, in some cases, wary of entering a new livelihood for fear of forfeiting the lifestyle associated with fishing.

The theme ‘stakeholder cooperation’ included both perceived and observed environmental benefits and the alignment of stakeholder interests resulting from nature-based tourism, as well as economic benefits from an overlap of equipment (e.g., boats and safety gear). The majority of these comments focused on the conservation benefits of tourism development. Three of the key informants noted examples and/or the potential to use MPAs as tourism features. One key informant also identified a project proposal to use FADs for SCUBA tourism. In addition to MPAs, a different key informant identified the general beauty of the coastal and the near-shore marine environment as a tourist attraction. Beyond tourism features common in or around artisanal fishing communities, an emergent sub-theme was the ability to align interests. Specifically two key informants stated the existing and potential benefits of tourism as not only an economic growth strategy, but also a conservation strategy. Both participants cited areas in the Philippines where a tourism shift has contributed to the protection of the marine environment. As one stated:

The tourism in that area [Anilao, Philippines] helped drive away illegal fishermen from the bay simply because people patrol them because their tourism [SCUBA] is based on number of fish people see on those reefs, including turtles, including sharks. And if you have commercial fisheries poaching in waters nearby, that’s not good for business. So they implemented the law; they have their own *bantay dagat* [sea warden]. They have their own patrol to drive away those commercial fishermen. It’s pretty good because those fishermen that chose to be fishers are now catching five or six times more fish than they use to [catch].

The success of this vigilante enforcement was also discussed by another informant whose response was coded under 'stakeholder cooperation.' Additionally, the effectiveness of vigilante enforcement associated with tourism businesses in the Philippines was also mentioned by others outside of this research and noted in my research journal.

The final comment coded under stakeholder cooperation arose from secondary benefits associated with a livelihood improvement effort aimed at improving safety at sea for fisherfolk. The described development programme provided fisherfolk with equipment such as patrol vessels and life jackets. The key informant noted that the recipients of the gear "are actually charging to take people out to see the MPAs areas in inshore waters and earning income from this and providing life jackets for people who go out on the boats." Recurring throughout this theme was the secondary benefit of MPAs for tourism purposes.

A single key informant identified the improvement of language skills (e.g., English) as a social benefit of tourism development. This perceived benefit came from long-term observations over two decades in a developing nation. The data from the key informant demonstrated that these stakeholders, unlike the fisherfolk, were able to identify risks and benefits that covered economic, social and environmental realms. This disparity in the data is important as it reveals a potential under awareness by the fisherfolk surrounding development in remote artisanal fishing communities.

To gain more depth about the differences in perceptions between the key informants and the fisherfolk, key informants were asked to identify pull factors for tourism in remote fishing communities. Whereas, some fisherfolk could not identify a potential or existing tourism attraction within their respective fishing communities, all key informants were able to provide actual or potential examples of feasible attractions. Examples included surfing, nature-based tourism, and cultural tourism (e.g., village visits, learning local trades). Further, one key informant expanded on the value of cultural tourism for fishing communities. Noting the inability to depend on a degraded resource for tourism, this key informant stated:

It's more of a cultural thing than an aesthetic tourism, because if you go to fishing villages their resources are already kaput or destroyed you have very little chance of developing a diving tourism or anything for that matter unless you start preserving them. A cultural tourism would be a way to do that while the resources are recovering or given a chance to recover. If you can stop fishing all together and shift them temporarily to tourism that might be a pretty good solution.

Up until this point the interview structure was similar, and in many cases identical, to that of the fisherfolk sessions. However, the different experiences and perspectives of the key informants provided an opportunity to document lessons learned from their experiences engaging with remote fishing communities. The next section covers topics including strategies for gaining access to the communities and challenges associated with development.

#### *4.7.4 Working in remote fishing communities*

The key informants brought unique perspectives to the discussion about engaging remote fishing communities in the tourism sector. As a result of the different realities of the key informants from the fisherfolk and from each other, the contributions of the key informants added an important different perspective. The strategies for gaining access to project communities are discussed first as they set the foundation for the lessons learned and provide answers to the overarching research question regarding the viability of marine tourism as a development strategy for remote fishing communities. A précis of each narrative response is included in the table alongside the theme(s). This is done to provide a summary of evidence-based examples of the strategies employed by the different key informants. The informants' respective employment sectors were included as it was determined that the key informant comments did not pose an ethical risk. Further, the identification of the general sectors with strategies allows for a comparative discussion. Results are presented in Table 4.25.

Table 4.25: Main Strategies for Engaging with Remote Fishing Communities

Representation	Theme(s)	Précis
Tourism sector	Provide livelihood opportunities	“We hired a couple people from the community to work for us and just over time convincing them that we really mean what we say and are out to help the people and at the same time we are trying to save the environment for future generations of people who live in that area.”
Tourism sector	Provide livelihood opportunities	“We developed a business model that just focused on lodging. We wanted to do a sustainable community growth, so what we did was... We do the lodging and we outsource everything else to the locals.”
Fisheries sector	Provide livelihood opportunities Community inclusion	“Involve them as part of the management committee for tourism and get them involved in all the other parts like guiding the visitors.”
Fisheries sector	Provide livelihood opportunities Community inclusion	“The best strategy would be to talk with them. They might have better ideas when you start going to them. Get the feel. People are so receptive if it has a livelihood tone to it. All you need to do is to ask them.”
Fisheries sector	Provide livelihood opportunities Community inclusion	“We’ve tried to use the sustainable livelihoods and diversification approach. We consult with the communities and the governments on the options which are available to them and the communities themselves have played a large part in identifying what they’d like us to support.”

Only two themes emerged from the question on engaging fishing communities in tourism: 'providing livelihood opportunities' and 'community inclusion.' However, as demonstrated by the précis, there were differences in the strategies. For example, both representatives of the tourism sector only identified providing livelihood opportunities and did not identify with the community inclusion mentioned by the three informants from the fisheries sector. This was an intriguing finding as community involvement in the planning and management of development programmes is a commonly used and well-accepted strategy. This is not to say that either tourism operator failed to involve the respective communities; instead it was interpreted from the data that the previous professional experiences and altruistic personalities of both operators had pushed them to create realistic business models that not only work to improve the marine environments, but also to provide livelihood diversification opportunities within the communities.

Both operators approached livelihood development with a business strategy driven by a "we know best" attitude. In both cases, the unique characteristic associated with this approach was goodwill. As one tour operator explained, "our objectives are not to steal their land, and take advantage of them and steal their resources, which they would allow us to do no problem if we paid them enough money." Both cases describe situations where the developers, the surf-tourism operators, are favourably manipulating the communities. While this practice has an inherently negative connotation, manipulation can be used for positive change. Also demonstrated by a tour operator, it did not take initial community support for the project to be considered successful by both the operator and the community. One of the tourism projects is still in the beginning stages of the project, but the operator has also noted challenges with gaining initial community support. Particularly, the operator reported challenges associated with working with a group that represents the indigenous people of the project area. The operator reported that the group was unable to help due to a "lack of management ability, financial means, transparency in accounting and other things we needed in order to run an efficient organisation."

Both of the experiences of the key informants representing the tourism sector provide support for a minimal inclusion of the community in the planning stages of a development project as long as there are potential livelihood improvement components within the project. On the other hand, the responses from the fisheries sector support a more diplomatic approach that focuses on community inclusion.

All three representatives from the fisheries sector emphasised the importance of community inclusion in the planning and management of a project. The key informant representing an international aid agency provided a specific example that demonstrated his opinion the value of listening to the community. The request of the community was for upgrades to a path that connected the village to the beach. The value of this request was unclear to the outsider as the key informant stated:

Against our better judgment we did it, and it resulted in quite a significant change for the fishers there. Previously they only had one or two middle traders who went to the beach to buy the fish and they controlled the price. They didn't pay cash at the time and they paid later. So these fishers were tied to these few strong middle traders. And after we put in this path, other people were coming down to the beach and they were buying fish for cash at good prices, so this made a big difference to this community. Suddenly they were getting good prices for their fish and they could bring ice down which improved the quality of the fish as well. They said they were very pleased.

Overall, the inclusion of the community was the most notable difference in the data creating a distinct difference between the two sectors. However, the parallel involvement of one tour operator in an NGO dedicated to marine conservation and a tourism development likely lessened this divide. To apply a measure of legitimacy to the different approaches used by the informants, as well as to explore potential challenges associated with engaging fishing communities in tourism development projects, key informants were asked to describe observed or experienced challenges or complaints associated with livelihood diversifications related or unrelated to tourism.

All key informants described challenges associated with gaining community support or institutional support for projects and some described specific complaints from members of the communities. There was little repetition amongst those from the fisheries sector; however, the challenges associated with development projects by the key informants from the tourism sector were nearly identical (see Table 4.26).

Table 4.26: Main Challenges Associated with Development Projects in Remote Fishing Communities

Representation	Challenges
Tourism	Nationality Bureaucracy Community resistance
Tourism	Bureaucracy Community resistance
Fisheries	Lack knowledge Conflict of interests
Fisheries	Lack of communication Distribution of wealth Exclusion
Fisheries	Procurement

Both key informants from the tourism sector described difficulties associated with bureaucracy in their respective project areas. Both tour operators used the term ‘red-tape’ in their narratives. In addition, corruption and cost emerged as sub-themes from the responses about bureaucracy. Corruption was associated with comments regarding a participant’s frustrations about the inability to work legally through the official channels, which were described as being “completely corrupt.” It was also explained that the process for a project proposal in an indigenous land area requires additional applications as part of a 5-step process, as one informant recounted:

Each stage is confusing and unclear and there's no guideline, there's no manual, there's no easy way to do it. You've got to go in there and then they say 'you did it wrong' and it's like, 'How am I supposed to know?' and even people who've done it two or three times and have projects through... it seems like the process is always changing.

The final commonality seen from the tourism sector was the theme 'community resistance.' Though the descriptions were coded under the same theme, the topics varied slightly. One case of resistance stemmed from a lack of inclusion of the community in the planning stages. However, as the project design was based on long-term community inclusion, the resistance was quickly mitigated. As one key informant explained:

They said you're going to take business away from us, blah, blah, blah. But ever since, maybe a few months into it, and after we had a few events, everybody loves us. Nobody wants to work against us because now they all earn money.

The other issue of community resistance was influenced by the proposed projects emphasis on environmental protection. The other informant described a community's rejection to the project proposal:

We were very transparent and we told them we wanted to have wildlife cameras and surveillance cameras and when they heard that they would be recorded and their daily activities would be recorded they basically said 'no we don't want you here.'

Both examples describe what is perceived to be a fear-based resistance to change. In one case the community was afraid of economic change, while the other case shows a community unwilling to have their practices documented for fear of having to change.

Although there was overlap amongst responses from the tourism sector, common themes were not observed in responses from the representatives of the fisheries sector. This was interpreted as a difference in project approaches between the sub-sectors (e.g., associated protocols, funding streams). One key informant identified conflicts of interests, specifically environmental



and economic conflicts, as being a main challenge in development or livelihood diversification in fishing communities of the Philippines. This was summarised by the statement:

It's always the conflict because the LGU always wants the economic side of the business and here comes the environmentalist who wants the entire protection of the animals. They don't want to compromise.

Another challenge listed by the informant, was that the communities often lack knowledge about conservation and conservation techniques. The importance of such concepts may be misunderstood and lead to conflict over the resource rather than protection or improvement of the resource. Using whale shark tourism as an example the informant explained, "to the environmentalist, feeding the whale shark means changing the behaviour of these animals, but the people [tour operators] say we are just feeding them; we're not doing anything harmful."

Thus, it was interpreted that a main challenge within artisanal fishing communities is a lack of a significant knowledge base concerning the ecological dynamics of the marine resources. This may threaten the success of development strategies as the majority of programmes have a conservation component (e.g., livelihood diversification to relieve pressure on the fisheries) as a major output.

Another key informant, add that cultural norms may exacerbate the confusion:

You have to fully explain to the people because, you know, here messages are transmitted through gossips. And if you don't send the clear message across initially, that will create a huge problem for the community, as well and for the project; so you better start right by informing the people what your intentions are, and how it benefits them and others.

Many factors influence the idea of "gossips" as a communication strategy. For example, general community dynamics, such as extended family members sharing a single dwelling, close contact with other neighbours through daily business create multiple opportunities for verbal interactions. In addition, the limited access to technologies (e.g., television, cell phones, radios)

and often news periodicals make verbal communication the most common form of news transmission. It is also important to note that outsiders, although they may be nationals, are often misunderstood due to language barriers. These issues, if not addressed, may create community resistance to a project, even in cases where the project is in the community's best interests.

The same informant also felt that a poorly planned distribution of wealth from tourism development is a cause of resistance among members of a fishing community. Noting that the fisherfolk do not have the means to invest into large business, such as tourism resorts, the informant explained, "it will be the outsiders who are coming in to cash in on it." This response led the informant to another challenge, exclusion. While the benefits to the community are not always monetary, the informant felt that community inclusion was critical to the success of a tourism development. The solution offered was to clearly communicate potential or planned benefits to the community prior to beginning such a project. This was to avoid an isolation or objectification of members of the community.

The key informants representing the NGO and a government fisheries employee had minimal overlap in their responses with the exception of the idea of misunderstandings on behalf of the community. Similarly, one informant described a challenge not repeated elsewhere in the data. This informant listed the procurement process as the main challenge associated with development programmes. The example provided was from a project in the Philippines that required a purchase of multiple vessels. The standardised procurement process required by the international aid agency not only delayed the project, but also required a vessel design different from the traditional *bancas* used throughout the Philippines. The informant explained the challenge of aligning the desires of the beneficiaries with those of the project requirements:

The provincial governor wanted us to use the traditional design and to assemble the boats locally which would have been good for the local communities and economy. And they wanted us to use reconditioned engines imported from Japan, which is the traditional system there, but they [funding agency] just refused point-blank for us to do

that. They said that unless we get a guarantee for the engine, a warranty, which the importers refuse to do, [the agency] couldn't fund it. So we went for locally assembled fibreglass boats [with a non-traditional design] with outboard engines.

The time delays resulting from the procurement process may also hinder the overall progress and ability to evaluate a project. For example, when asked if the use of non-traditional vessels was an issue for the project in the Philippines, the informant could not answer stating that "they didn't get the boats until probably August of this year [2013 - following the projects conclusion], so we don't know how they are getting on with them."

#### *4.7.5 Closing the interview sessions*

Throughout the key informant interviews, it was evident that all participants felt that tourism was a viable option for livelihood diversification within remote fishing communities. To conclude the key informant interview sessions, participants were asked versions of a 'lessons learned' question. For some, this included milestones and observable effects, while for others, it focused on prioritisations, unforeseen programme results and exit strategies. Finally, all interviews were closed with the question, "is there anything else you would like to share?" All but one key informant responded to this question. The responses to both questions revealed additional information that was considered important to the research. The differences in sectors, approaches, budgets and goals (e.g., target beneficiaries, resource improvement, financial profit) of the key informants made inter-project comparisons challenging. Thus, supporting and hindering factors coupled with informant experiences have been combined to produce a flow chart that describes and summarises the factors that influenced project outcomes (see Figure 4.12).

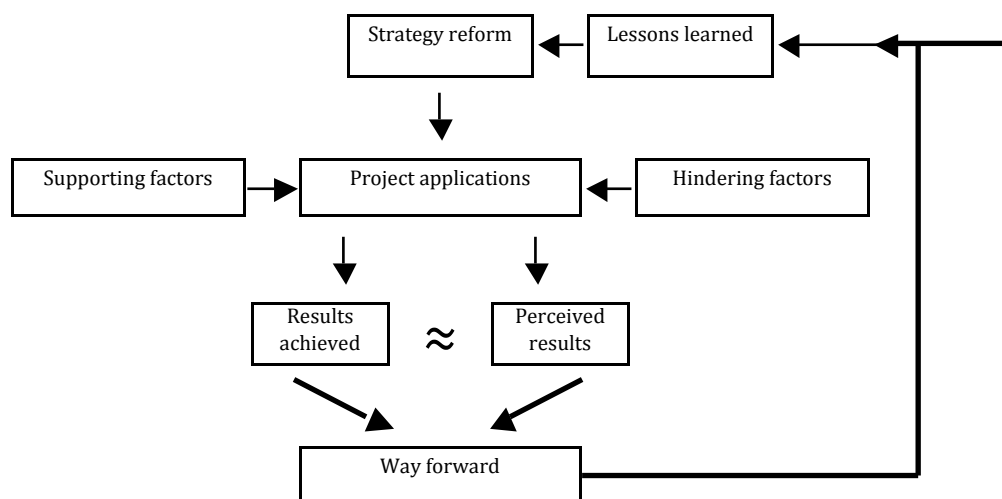


Figure 4.12: A way forward. An application of lessons learned from outsiders working inside remote fishing communities.

Figure 4.12 is discussed chronologically using examples from the key informant interviews beginning with the starting input, ‘lessons learned’. The input, ‘lessons learned’ was created to describe extenuating circumstances and unforeseen project effects. The focus of these responses varied. For example, a key informant from the tourism sector was surprised that the community was eager to participate in beach clean-ups. In another case, a key informant from the fisheries sector described the benefit of a trial position dedicated solely to the dissemination of project information. This same informant went on to state, “I think the process itself [reference to fisheries development project with livelihood diversification components] was more important than the actual results.”

These responses offer unique evaluative perspectives that feed into the second input, ‘Strategy reform.’ This input was included as a second step that allows for the applications of the lessons learned. This process was not created based on key informant responses, rather it was included as a logical part of a process that should be designed to diversify rather than duplicate past efforts. The role of strategy reform is discussed in depth in the following chapter.

The box 'Project applications' represents the livelihood diversifications projects themselves, which are affected equally by the horizontal inputs, 'Supporting factors' and 'Hindering factors.' The supporting factors have been taken from key informant responses and created as opposite effects of hindering factors (taken from challenges presented in Table 4.26). Supporting and hindering factors are presented in Table 4.27.

Table 4.27: Supporting and Hindering Factors of Project Applications

Supporting Factors	Hindering factors
Nationality	
Effective management	Bureaucracy
Community support	Community resistance
Receptive audience	Lack of knowledge
Stakeholder cooperation	Conflict of interests
Effective communication channels	Lack of communication
Distribution of wealth	
Community inclusion	Exclusion
Minimal restrictions	Procurement process
Observable project outputs	No previous project experience
Cost	
Timeframe	

The hindering factors were described with Table 4.26, and, therefore, do not require repetitive explanation. The supporting factors that affect project applications are, by nature, the opposite of the hindering factors and are presented accordingly. In the case of nationality, this may be seen as either a supporting or hindering factor depending on the situation and/or the nationality. For example, within the Philippines, a Filipino national is able to purchase land, hence, simplifying an often-necessary process. Further, a national may be able to better communicate with a host community by speaking a mutually understood language.

Alternatively, a non-national may have the financial means needed for a project. Additionally, outsiders (non-nationals) may be able to bring a different perspective to the projects.

The supporting factors, 'effective management', as well as 'community support' are straightforward and require little explanation. For example, a situation of effective management would include an active application of the law with minimal corruption, supported by an efficient system of enforcement. This would require that political use of the resources and communities for purposes of personal advancement would also be negligible. Additionally, an effective management scheme would have logical and navigable permitting processes. The factor of community support is described by a situation in which the majority of the community is in support of a project and there is little to no resistance to change observed.

A lack of knowledge about a project or project-dependent resources (e.g., fisheries, coral reef ecosystem) can be corrected; however, the temporal requirements of achieving this should be considered an important factor for project applications when trying to adhere to a reasonable timeline. The term 'receptive audience' describes not only an audience that is willing to learn, but also an audience that is easily capable of learning. For example, teaching a university-educated individual about ecosystem function and management would likely be easier than teaching an elementary-educated individual the same concepts. This term was created in relation to this research from the data from one of the key informants. It became apparent through the informants' responses that the depth of knowledge of the fisheries and fisheries laws was cursory. For example, when asked if some fishing methods were more sustainable than others, this interviewee responded, "I don't know which is more sustainable." Though this key informant's understanding of fisheries and fisheries-related functions may have been limited, it was not considered as a limiting factor overall. This interpretation was based on the understanding of other sometimes complex concepts (e.g., wealth distribution, non-point source pollution) which were seemingly well understood by the informant and which had been thoughtfully managed by this key informant. Thus, it was concluded that this person, as well as anyone with similar experiences (e.g., previous education, exposure to community

development and with knowledge of livelihood diversifications programmes) would be receptive to education either through a minimal training session(s) or even self-education.

Another factor influencing project applications was the ability to communicate effectively. This factor primarily refers to the communication channels between project staff and beneficiaries as it is expected that intra-community communication will be dependent on the depth of understanding of key community members. The success or failure of this factor will consequently influence the following factor, distribution of wealth. While it is not expected that wealth distribution will be equal, the understanding of and agreement with the expected wealth distribution method will determine if 'distribution of wealth' is seen as a supporting or hindering factor.

Community inclusion as a supporting factor refers to community involvement in the project. This may or may not include involvement in the planning process as this was demonstrated as unnecessary by one of the key informants. Rather, community inclusion refers to the involvement of the community as a beneficiary and supporter of a project.

The next supporting factor, 'minimal restrictions' is associated with projects outside of the government and international aid agencies as these types of projects often require lengthy and restricted processes associated with the procurement of project equipment and funds. Thus, the minimal restrictions for procurement of funds associated with the involvement of an NGO, business or personal project may be seen as beneficial.

The following supporting factor 'previous project experience' was gleaned from key informant responses and did not have a previously mentioned opposite. Therefore, 'no previous project experience' was added as a hindering factor. The factor 'observable project outputs' was taken from participant comments about the efficacy of project applications, particularly MPAs and the installation of concrete barriers. The latter refers to a project in a developing country in Southeast Asia that relied upon the installation of large concrete cubes designed to prevent commercial fishing vessels from entering shallow waters reserved for artisanal fisherfolk. The observable positive effects as well as the associated livelihood diversification potentials of such

projects were summarised by the key informant representing the international aid sector who explained:

The ecosystem health is improving and fish are returning to created MPAs and particularly where they've put in the concrete structures. We work with a local NGO in [country] and they arrange tours for people who want to dive and fish and they've reported increased numbers of fish and larger fish around the concrete cubes.

The final factors, 'cost' and 'time' were considered both supporting and hindering factors. These were mentioned multiple times by key informants in various aspects. An area not addressed by this research was differences of size and scale of various projects. Though there were considerable differences in the size and scale of projects described by the key informants, the factors associated with such differences are considered by the factors 'cost' and 'timeframe.' Although the project was extremely effective, the informant from an international aid agency noted the substantial cost of the concrete instalment project as being cost prohibitive as a comprehensive conservation strategy. When looking at livelihood diversification options from a development perspective, timeframe and cost represent important factors to consider. Ideally, a short timeframe and a low cost per unit effort (with a beneficiary representing a unit) should result in improved project applications and outcomes.

The succeeding processes 'achieved results' and 'perceived results,' were designed as a logical progression meant to give value to the perspectives of both the insiders and the outsiders. Preferably, the next and final step 'way forward' would hinge on a comparable state of the achieved results and the perceived results (depicted by the double tilde). The final process depicted, 'a way forward,' is anything but final. Instead each 'way forward' would produce more 'lessons learned,' thus, again entering the depicted cycle. Figure 29 was created to summarise factors, effects and experiences of the key informants that would have otherwise been difficult to compare. The intention was to reveal important factors based on previous experiences rather than to simplify a challenging process. When those involved in fisheries were asked for examples of successful livelihood diversification, unspecific to the tourism



sector, not all key informants could answer. As the rep from the NGO sector intensely reported, “I haven’t really seen a good example of livelihood augmentation that was developed, especially in an area where fisheries resources are so depleted.”

#### *4.7.6 Applications of tourism models from in situ observations.*

The information collected from the *in situ* observations from the projects of the two key informants from tourism sector is summarised in this section. In some cases, excerpts from the respective interviews have been included. The projects are referred to as Model 1 and Model 2. Each is given a descriptive title in the following discussion chapter.

The design of Model 1 was developed based on the operator/founder’s previous experience with development work. Instead the project was based upon a model designed to promote “sustainable community growth” (anonymous, November 25, 2013). At the time of the interview, the informant had opened two nearly identical hostel-type tourist accommodations in two different locations/surf destinations with a third and fourth scheduled to open in 2014 and 2015 respectively. The hostels were constructed with locally sourced, sustainable materials (e.g., bamboo) and have, therefore, been advertised as “eco-hostels.” The uniqueness of the model comes through its limited provision of services. The operator only provides accommodation. The responsibility to fill the associated void in services (e.g., activities, food) is left to the community. Based on the reported opinions of the key informant, the first eco-hostel that opened in 2011 continues to be an economic success for both the operator and for the community. The second eco-hostel that opened in 2012 has tracked similarly. With the exception of the first few months following the openings, the operator reported no complaints from the communities or perceived negative social effects. Through the design of the model and prioritisation of community benefits over profits, it was apparent that the operator was altruistic. Both eco-hostels offer accommodation only in the form of single bunks or spaces to sling a hammock.

The second model under discussion was also revealed through key informant inquiry and *in situ* observation. The tourism services under Model 2 were, at the time of writing this thesis, being

developed using a microfinance programme. The UN accepts the definition of microfinance and describes its associated agencies as:

Banking and/or financial services targeted to low-and-moderate income businesses or households, including the provision of credit. A microfinance institution (MFI) involves microfinance products and services (e.g., loans) to low-income clients. The institution might be a non-profit organisation, regulated financial institution or commercial bank. (UNTERM, 2010, n.p.)

Though the microfinance programme associated with this model is funded through an NGO, the uniqueness of this model comes from the personal motivation behind the host NGO. In this specific case, the NGO to which the microfinance and tourism development programmes are linked was founded with private personal equity.

The tourism component of the Model 2 operates on a donation/invitation system rather than the traditional service or user-fees. The recommended donation amount is considered all-inclusive for accommodation, food and beverage as well as water sports activities (e.g., island hopping/exploration, fishing, diving, surfing). In return for a donation, the donor receives an invitation from the community for an equivalent length of stay; this was depicted at the bottom of the first spiral as “experience.” The donation is paid to the NGO with profits going directly into conservation programmes (e.g., native forest restoration, Biorock® reef construction) and towards the creation of livelihood diversification programmes that target fisherfolk formerly using illegal fishing methods.

The donation system seeks to reduce the power of the potential guests thus protecting the community. This design not only provides the operator and community with the ability to control or even end a visit, but also supports the identified goal of offering visitors an “authentic” experience. As explained by the operator, “the donation is separate from the free invitation to visit so there are no refunds. The customer is *not* always right at the [Anonymous] surf camp.” Guests are expected to be considerate of the indigenous community’s privacy by

following a code of ethics that includes appropriate behaviour (e.g., avoiding the following: excessive intoxication, the use of drugs, womanising or engaging in prostitution and public nudity), observing restricted access to some areas and a ban on photography of community members except with permission. Thus, the donation feature of the model reduces the social risks to the community, through community empowerment.

Guests will also be asked to participate in daily conservation efforts (e.g., planting hardwood trees, building Biorock® reef rehabilitation structures, reef surveys, collecting coral fragments resulting from storms, mangrove rehabilitation) and will be given the option to completely offset the carbon footprint of their trip through participation in activities associated with carbon sinks. Similar to the other operator, this operator/founder was described as being altruistic as a result of the emphasis on social benefits.

Currently, the model targets a primary beneficiary family that is of Tagbanua descent. The microfinance programme funded by the host NGO provided members of this family with a loan sufficient for the purchase of the land (which is ancestral domain) needed for the tourism establishment, as well as materials. Estimating a construction of six eco-villas with an average of 20% capacity utilisation and variable costs that are half or less than half of the revenue from the donations, the loan is set to be repaid in less than five years.

#### *4.7.7 Synopsis*

The key informants represented key stakeholders from both the fisheries and tourism sectors. While most of their experiences were limited to Southeast Asia, all key informants had unique overlapping experience in both sectors. Further, the representation of the sectors (e.g., government fisheries, NGO fisheries, international aid agencies fisheries, local tourism, foreign tourism) is deemed relevant in other developing nations throughout the world (refer to Cater & Cater, 2007). The experiences of the key informants sought to contribute to the trustworthiness of the overall data set, most importantly through the documentation of lessons learned.

#### 4.8 Summary

This chapter presented the data from the interview sessions as well as from the *in situ* observations. The data taken from the participant groups (fisherfolk and key informants) were analysed and organised to provide a basis for comparisons between the two groups, as well as to create a perception-based reality of fisherfolk that enhances the understanding of the applicability of tourism as a livelihood diversification strategy. It is understood that the realities between the two participant groups are arguably different; however, the differences served to highlight potential gaps associated with development strategy. As an example, the disparity was most evident from the differences between the two groups concerning the perceived effects and risks of tourism placed on the environment and resource. The data from the key informant group demonstrated an acute awareness of the potential benefits and risks associated with livelihood diversification through tourism, as well as a provided a comprehensive understanding of the state of the fisheries and the marine environment through the realities of the participants. Table 4.28 summarises the key findings from the data.

Table 4.28: Summary of findings identified from the interview data.

Summary of research objective	Summary of fisherfolk findings	Summary of key informant findings
Fishing lifestyle	<ul style="list-style-type: none"> <li>• Effects of reduced access observed</li> <li>• Majority are content with their lifestyle</li> <li>• Occupational satisfaction was high</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
State of the resource	<ul style="list-style-type: none"> <li>• Decline in catch was reported</li> <li>• Current catch is still seen as sufficient</li> <li>• Unable to identify effects of personal actions on the fishery/environment</li> <li>• Some felt the current management is lacking or ineffective</li> <li>• Identified some drivers in illegal fishing</li> <li>• Unable to identify environmental issues outside of illegal fishing</li> </ul>	<ul style="list-style-type: none"> <li>• Fisheries not sustainable</li> <li>• Immediate changes are necessary</li> <li>• Explained long-term impacts of overfishing</li> <li>• Multiple challenges (internal and external) with current management</li> <li>• Identified complex drivers in illegal fishing</li> <li>• Identified multiple issues affecting the marine environment</li> </ul>
Tourism awareness	<ul style="list-style-type: none"> <li>• Awareness of tourism is low</li> <li>• Awareness is closely linked to exposure</li> <li>• Excited by the opportunity to see visitors</li> </ul>	<ul style="list-style-type: none"> <li>• High level of tourism awareness</li> </ul>
Costs/benefits of engaging in tourism	<ul style="list-style-type: none"> <li>• High level of willingness to engage in tourism</li> <li>• Perceived risks were extremely low</li> <li>• Potential social benefits prioritised over environmental and economic benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Able to identify multiple risks and benefits associated with tourism development</li> <li>• Feel tourism will become a necessary strategy to lessen the dependency on the marine resources</li> </ul>

The data from the *in situ* observations have described two unique and existing models of small-scale tourism development in remote artisanal fishing communities. These descriptions provide the basis for an evaluative discussion in the following chapter. The following chapter will use supporting literature to evaluate the interpretations and findings presented in this chapter in light of the research objectives, specifically the exploration of tourism as a livelihood diversification strategy for remote artisanal fisherfolk.

## **Chapter 5: An Interpretive Discussion of the Results**

“Start with what they know, build with what they have.”

- Lao tsu

### **5.1 Introduction**

This chapter provides a comprehensive and interpretive discussion of the research findings presented in the previous chapter. This discussion centres on addressing the emergent themes drawn from the data from the two main participant groups, which consist of three fisherfolk communities and five individuals as key informants. By drawing intra and inter-group comparisons of these themes, an interpretive analysis is presented and grounded in the previous literature. To address the diverse themes that emerged from the findings, this chapter is divided into four sections based on the four research questions concerning fishing livelihoods, the effects of fishing on the marine environment, tourism awareness in remote fishing communities, and the perceived effects of tourism development. The research questions are presented in combination with the heading of each major section. While the emphasis of this chapter is on the findings from the fisherfolk data sets, pertinent findings from the key informant interviews have been used to support relevant pieces of the discussions. The chapter concludes with a comprehensive summary of the discussion.

### **5.2 Fishing livelihoods: Fisherfolk perceptions of fishing as a livelihood**

This section discusses the daily lives and characteristics of the fisherfolk participants. In particular, it focuses on the socio-demographics of the participants, the ability to earn, the prioritisation of expenses, as well as the perceived occupational satisfaction. In general, this section attempts to accurately depict the lives of Filipino fisherfolk as experienced by the fisherfolk themselves. Further, it considers the findings from this study in comparison with artisanal fisherfolk in other developing nations as represented in the current body of literature. It concludes with a discussion on reported occupational satisfaction which serves as a foundation for later discussion regarding willingness to engage in tourism activities.

### 5.2.1 *The fisherfolk*

The catch data combined with reported daily income and expenses describes small-scale or artisanal subsistence fisheries in the three research sites. Based on the reported fishing practices, all of the fisherfolk surveyed would be considered artisanal or municipal fishers under the Philippines Fisheries Code of 1998 (refer to 2.3 Artisanal fisheries definition). The most noticeable difference in the reported catch and gears came from Dimipac (see Figure 4.7) where a large number of participants reported using hook and line. This type of gear is characteristic to the grouper fishery (Fabinyi, 2007), in which multiple participants from Dimipac referred to participation in this fishery. While many participants reported using mixed gears, it is expected that the use of mixed gears may have been under reported in the data. This conclusion was made based on personal observations of fishing nets at participant's homes, which were in some cases not reported as a gear. Additionally, on more than two occasions, the participants' use of a previously unreported gear became obvious. However, this underreporting of gear types was not deemed to have had any significant influence on the reported findings.

In general, an accurate account of actual fishing effort and catch was difficult to capture. For example, when asked how often they fished, some participants indicated a high level of effort of six or more days per week as long as the weather was good, with most taking Sundays off for church. However, when these participants were questioned about fishing during the day of the interviews, which were never conducted on Sundays, most participants had not been fishing. Although all of the interviews occurred during *amihan*, the northeast monsoon season (September – June), the interviews did not coincide with any major weather events. The most severe weather observed during the interview days was slight winds and slight to moderate seas. Such contradictions were not deemed as affecting the interpretation of the data as the reported catches correspond with more recent catch data (FAO, 2004) and the apparent decline in the fishery is supported in the literature (e.g., Baticados, 2004; White et al., 2000). Instead, the misrepresentations of effort have been interpreted as a consequence of fishers' lack of formal recordkeeping and adherence to a regular schedule. Such gaps or discrepancies in the

data are not extraordinary as consistent data from the artisanal fisheries data are notoriously difficult to capture due to the nature of the fishery (Mensah & Antwi, 2002).

The UNFAO (2010) described the challenges facing those involved in artisanal fisheries in developing countries:

Artisanal fisheries are often thought to be backwards, sometimes because of a lack of data and understanding on real trends and socio-economic impact. They are difficult to administer in the conventional top-down mode because of their physical scattering along the edges of the aquatic systems, rivers, lakes and marine shores, including in difficultly-accessible areas. This last characteristic explains the severe constraints faced by these fisheries in terms of management, access to modern technology, capital, health care, markets, electricity, education, manpower, etc. These constraints are furthermore compounded by the lack of mobility out of the sector and the area (except perhaps through migrations). (para. 20)

Similarly, Townsley (1998) characterised fishing communities as having “overcrowded living conditions and inadequate services, low levels of education and a lack of skills and assets (particularly land)” (p. 140). The fisherfolk participants from this research are characterised by most, if not all, of these descriptions. Thus, based on this information coupled with the participant-described educational achievements, reported incomes, migrational movements and general daily lives are described as common and typical characteristics and attributes of remote artisanal fisherfolk in developing nations (Baticados, 2004; Dalabajan, 2009; Fabinyi, 2007, 2008, 2010). Therefore, the discussion of the perception-based data is presented in this chapter as a result of an interpretive analysis and also in relationship to the previous literature describing remote artisanal fishing communities.

### *5.2.2 Education*

Of the fisherfolk surveyed, all interviewees had participated in some form of formal education with participation in at least some level elementary education (kindergarten through year six)



being the largest group (see Figure 4.1). There is little description in the literature documenting the educational achievements of fisherfolk in the Philippines; however, Cruz-Trinidad et al., (2011) describe the education levels of fishers in Bolinao as “generally elementary graduates or have attained elementary levels” (p. 699). This is consistent with the reported education levels from Victory participants (Victory is part of Bolinao town-proper). The lack of emphasis on formal education is common to rural areas in the Philippines (Aldaba, Lanzoma, & Tamangan, 2004), and throughout the developing world (Webbink, Smits, & De Jong, 2013; Sobhee, 2006) where many students leave the education system at a young age to help contribute to the household income. Aldaba et al. (2004) notes, “poor households simply cannot afford to send their children to school even with free primary and secondary education. This is because attendant costs of sending children to school may even be too much for a low-income household” (p. 219). This statement was mirrored in Sobhee’s (2006) characterisations of artisanal fishing communities in Mauritius. Such circumstances can be exacerbated in remote areas where access to schools is limited (Aldaba et al., 2004). Remoteness was a factor characteristic to the third research site, Dimipac, where attending school requires inter-island travel. In addition to a temporal cost, the families must secure transportation. This can prove challenging as not all families own a vessel. Additionally, the families are expected to incur the fuel costs associated with transportation.

The inaccessibility and costs associated with formal education not only reduce the educational opportunities for children, but they may also lead to child labour (Bennett, 2005; Webbink, Smits, & de Jong, 2013). In describing an artisanal fishing community in Mauritius, Sobhee (2006) stated, “these inhabitants seem to be living in a vicious circle for years since their children end up performing the traditional jobs of their fathers and grandparents” (p. 415). This sentiment was mirrored by Pomeroy et al., (2006) and Muallil et al. (2009) who noted the low educational attainment as a limiting factor in livelihood options.

Another issue contributing to low levels of education of some fisherfolk is the lack of birth records. This was found to be an issue for an NGO group establishing schools in Palawan, Philippines (Anonymous, personal conversations, April 2013). For those born outside of formal

medical facilities, obtaining birth records may be time and/or cost prohibitive. It was explained that because formal birth records are required for school registration, many families do not have the means to obtain them, and, therefore, fail to enrol their children in school.

### 5.2.3 Migrational movements

Fisherfolk are often labelled as a demographic prone to migrational movements (Fabinyi, 2008; Kissling et al., 2005; Njock & Westlund, 2010). This is true in the Philippines where some indigenous groups such as the Bajau (also spelled Bajdao), sometimes referred to as the sea gypsies, live their entire lives at sea only coming to shore for necessities (see Nimmo, 1970). While the Bajau are an extreme example of the migrational characterisation of fisherfolk, it is common for fisherfolk to change locations due to push and pull factors described by Njock and Westlund (2010) (see Table 5.1).

Table 5.1: Reasons for Migration

"Push" factors	"Pull" factors
Decreasing fish catches and lack of alternative activities to fisheries	Better fish catches
Environmental degradation (drought, salification of agricultural areas, etc.) impacting on incomes	Availability of alternative employment or fishing as a "safety net" when other livelihood opportunities are lacking
Poverty	Better prices paid for fish and stronger markets
Lack of socio-economic infrastructures	Cheaper inputs, e.g., gear, nets, fuel
Social pressure to provide for family with remittances	Opportunity to earn money and save for specific event or goal, e.g., marriage, retirement, investment (in fishing equipment, housing)
Avoidance of social obligations	Better socio-economic facilities/infrastructure
Political instability or war	Following family or community members who have already migrated (easy social integration thanks to existing networks)

*Note.* Taken from Njock & Westlund, 2010, p. 756.

This research did not focus on the migrational movements of the participants; however, all interviewees were asked their place of birth (see Table 4.1). The data from this question demonstrated that though migration was not necessarily commonplace, it was not a rarity. For example, 14 of the 42 participants (33%) had moved a distance of more than 100 km from their place of birth. Not all participants provided reasons for moving locations; however, of those who did, reasons given were consistent with the findings of Njock and Westlund (2010) such as following family members and environmental degradation (e.g., as a result of natural calamities). Within the Philippines, Goldoftas (2006) described similar factors influencing the movement and even creation of fisherfolk, noting that those who fled the environmental degradation of inland and ended up in coastal areas became fishermen (p. 12).

While the migrational movements of fisherfolk are not seemingly important to this research, it is anticipated that the length of time in a location may influence the outcomes of livelihood diversification using tourism as strategy. For example, it is expected that pride in place would increase with time. Research of shifting baselines (e.g. M. Bunce et al., 2009) has shown that a long-term association with coastal resources affords the resident the ability to identify shifting baselines in the fishery. Thus, it is possible that pride in place may also have an effect on the willingness to care for and protect the existing resources, another important consideration for tourism. Finally, it is probable that a familiarity with the place that comes from long-term exposure is considered an asset for community members wanting to participate in tourism activities as a livelihood opportunity. Therefore, a high frequency of migrational movements may be considered a challenge when assessing tourism as a livelihood diversification opportunity. Although migrational movements may have an effect on the potential success for tourism as a livelihood diversification strategy, there remain other important influences. There are other attributes of the fishing lifestyle that may have an even greater effect on the viability of tourism as a livelihood diversification opportunity. These attributes are discussed in the following sections along with their interpreted potential effects.

#### 5.2.4 Income

Green et al. (2003) described Filipino fisherfolk as “some of the ‘poorest’ segments of the population” and also noted “their situation continues to deteriorate” (p. 61). The reported catch data combined with the reported daily income and expenses were characteristic of low-income, subsistence fisheries in all three research sites. Castro (2009) reported Filipino fishing households to have a poverty incidence twice that of the national rate and to have experienced the largest deterioration in poverty between the two most recent Filipino censuses. The most recent census conducted by The National Statistical Coordination Board of the Philippines declared that a Filipino household of five requires the equivalent of about 170 US dollars per month to avoid poverty and about 120 US dollars per month to maintain subsistence (Virola, 2011). The household size was not captured as part of the interview data; however, through personal observations and references by participants within the data, it was apparent that most, if not all, households surveyed exceeded five individuals.

Overall, Decabobo participants reported the lowest average incomes. All of the Decabobo participants reported *sari-sari*, or a mix of reef fish, as their target catch. This differed slightly from Dimipac, where multiple participants reported targeting *lapu-lapu* [grouper] to be sold in the lucrative live reef fish trade (Fabinyi, 2010). Despite the disparity seen between some of the research sites, the data reporting income appeared trustworthy as all of the reported averages (refer to Figure 4.8) were consistent with the incomes reported in previous studies (e.g., Cruz-Trinidad et al., 2011; Fabinyi, 2007). Thus, the daily incomes revealed in this study were considered to be typical of artisanal fishing households in the Philippines, placing the majority of the surveyed fishing households below the national poverty line. However, it should be noted that the government statistics for poverty do not take into account the sustenance provided by fishing. Despite the minimal reported incomes, the only references made about not being able to make ends meet were a result of formula-feeding infants. This finding was linked to inadequate access to health care services and information. A detailed discussion of the repercussions of healthcare access has been provided in Appendix 9.

In summation, this research produced an unexpected finding regarding access to postnatal health care, more specifically about breastfeeding infants. Though there were only three cases of participants referring to the added expenses associated with providing milk and formula products for small children, it is likely that this may be a more frequent occurrence. As the interview instrument did not specifically address healthcare or other issues of access to healthcare, the number of respondents who voluntarily focused on this topic, albeit few, suggest that the frequency may be higher. While this is not a new phenomenon in developing countries (see Muller, 1974), it has yet to be explored as a contributing factor to overfishing. As demonstrated by participant responses, the expenses associated with formula feeding, required participant households to borrow money. The attempts to make ends meet or repay debts will likely translate into an increase in fishing efforts and/or the use of illegal fishing methods (Baticados, 2004; Fabinyi, 2008) as families try to earn additional income to cover extra costs. Thus, an important finding from this research suggests that an increase in the number of mothers who formula feed or supplement breast milk with formula may negatively affect the perceptions of a fishing livelihood and lead to an increased pressure on the fisheries as a household tries to recuperate the additional costs of formula products. Any increase in fishing pressure or increased use of illegal methods will contribute to resource degradation. As Sobhee (2006) noted financial constraints (from formula feeding or otherwise), contribute to limited livelihood options. Further, given that this research explores tourism opportunities as livelihood diversification strategies potentially relevant for fishing communities (e.g., diving, snorkelling, island hopping), degraded resources become a chief concern.

#### *5.2.5 Interpreting poverty*

A Malthusian perception of poverty, in which the resources are or have been overexploited, is often used to describe small-scale or artisanal fishers (Béné, 2003). However, Béné (2003) revealed that the poverty affecting fisherfolk is riddled with complexities including a socio-institutional dimension. Aldaba et al. (2004) offered a unique description of the social effects of poverty that are commonly observed, but rarely described:

In economic jargon, intense poverty shrinks the time horizon of households to the short run. This means that households are willing to forego future income for current consumption; thus, future benefits have very little value to households whose immediate concern is survival. (p. 220)

Within the Philippines, the focus on immediate consumption is evident in the fishing communities and throughout the country where most goods are sold in single use/serving size sachets (e.g., instant coffee, shampoo, hair gel, laundry detergent, toothpaste). Even frequently consumed goods such as cigarettes and chewing gum are available by the piece. Similarly cell phone credit or “load” is sold in denominations greater than ten pesos (about twenty cents US). These practices may be linked to the short time horizon of fishing households as described by Aldaba et al., (2004), due to limited financial resources. However, there could also be an element of habit associated with the observed immediate consumptive practices.

Aside from the cases of families needing to borrow money to formula feed small children, in general it was determined that the participants were able to meet basic food needs of the household. This, despite the fact that many participants earned below the national standard for poverty and subsistence living, is likely a result of participant diets being supplemented with personal catch and in many cases the supplement of income through other sideline occupations and personal agriculture. In all households, additional income was derived from surplus catches, as well as sideline activities (see Figure 4.5). Additionally, based on previous literature (e.g., Dressler & Fabinyi, 2011; Eder, 2003) it was inferred that many of the participants participated in agricultural activities for sustenance purposes. As only a few participants noted participation in agricultural activities, this under reporting was attributed to a potential flaw in the research instrument. Therefore, It was concluded that activities such as gleaning and farming were perceived by participants as common practices as part of the “standard” fishing livelihood rather than additional sideline activities.

In the case of gleaning, there was a specific question addressing this activity. The data revealed that gleaning was done primarily for direct consumptive purposes. While, it was noted that

although some participants occasionally sold the molluscs collected from gleaning, none of the participants regularly sold the shell “waste” accumulated from consuming the glean. Rather many participants reported throwing the empty shells away. This was evident at all of the research sites as many dwellings were littered with piles of empty shells. While the actual value of the empty shells is difficult to determine, based on the documented value of a similar commonly collected mollusc species in the Philippines, it is expected that the waste shells would fetch a price of at least 50 cents US per kilogram (Floren, 2003). Though minimal, the empty shells resulting from a daily practice of subsistence gleaning do have a cash value that can be increased by creating shell craft items such as chandeliers and figurines (Floren, 2003). Therefore, if the participants were desperate for additional income, it would be expected that the shells would be sold, even if for minimal profit, rather than discarded. One factor that may hinder the sale of the leftover shells is location. According to Floren (2003), all of the research sites were outside of major collection points, thus, possibly reducing access to brokers working in the shell curio trade. Contrarily, Floren (2003) pointed out that the Tagbanua people, an indigenous group in Palawan (also represented in the sample), participated in the shell trade. Further, it was observed that shell craft souvenirs and curios (refer to Figure 4.4 for an example) were available in the larger towns near all three research sites.

Throughout the data collection, there was only one reference by a secondary female participant to souvenirs. This particular reference was in regards to cowrie shells as gift souvenirs for myself (reported in Table 4.14). This same participant household, when asked, was able to identify the sea as a valuable tourism resource identifying potential tourism activities such as beaches, swimming and island hopping. Previous research in the Calamianes showed that involvement in similar types of tourism activities allowed them to have plenty of work during the *amihan* [the northeast monsoon] (Fabinyi, 2010).

This lack of importance given to shell products in the findings may be a result of the minimal exposure to tourism and tourism products such as shell craft souvenirs and curios. Thus, it is expected that those who are familiar with tourism-based markets such as souvenirs, may have a better understanding of tourism activities and opportunities and would be more likely to

benefit from livelihood diversifications involving tourism. Fabinyi (2010) found that some fisherfolk who had been exposed to tourism in the Calamianes “saw future opportunities to open souvenir shops” (p. 422).

Finally, while some participants felt they were part of a “poor” *barangay* and others requested opportunities to improve their livelihoods, acute desperation was not inferred from any of the responses in the data. This may be a perception of few options outside of the fisheries (Muallil et al, 2009; Pomeroy et al., 2006; Sobhee, 2006) or general satisfaction with the fishing way of life commonly described in the literature (e.g., Green et al., 2003; Fabinyi, 2007; Muallil et al., 2009; Pollnac, Pomeroy & Harkes, 2001) or it may be a result of a subtler cultural nuance. Filipinos are often described in print and elsewhere as happy and resilient people (personal observation, Jan 2012-Feb 2012) and tend to avoid conflict in any form, even complaint (Roces & Roces, 2009). Fabinyi (2012) in his description of Calamianes fisherfolk found that, “not all fishers describe themselves as truly poor, they consistently represent themselves as belonging to a humble occupation” (p. 117). Another factor that potentially influenced the non-negative responses of participants may result from being able to make ends meet through the utilisation of illegal fishing methods, with minimal risk of conviction (Dalabajan, 2009).

In a case of economic desperation, it is understood that every resource would be utilised. In particular, it would seem that sale of empty shells would be a near “win-win” activity, as they are a secondary product of a primary subsistence effort. Additionally, when asked about daily expenses, participants often included items nutritionally non-essential for survival such as cigarettes, coffee, and sugar [mainly for coffee].

Therefore, it was interpreted from the data that based on participant actions (e.g., discarding shells from gleaning), participant responses regarding “necessities,” and the lack of participation in marketing of the empty shells (Floren, 2003) that the participants were part of a low-income, subsistence group. The label “poor” often infers that change or assistance is required. This was not observed to be the case from the interpretation of participant realities. Although the participants from this study were categorised by government-defined standards



as living in poverty, the true desperation of the situation should be a reality-based assessment, rather than a measure of statistics. Béné's (2003) investigation of the relationships between poverty and fisherfolk revealed that:

Socio-institutional mechanisms which govern the command of fishery resources (essentially social positions and the institutional arrangements controlling the access to, and the use of, these resources) play a more critical role in determining poverty (or symmetrically wealth) than pure economic or biological considerations. (p. 968)

In the case of the remote fisherfolk participants from this study, the government-defined required income levels to maintain subsistence or escape poverty may not be applicable. These standards are seemingly based on the standards and realities of outsiders rather than those fisherfolk who are experiencing the reality. The work of Pollnac et al., (2001) sought to disprove the common assumption that fisherfolk are among the poorest of the poor. They found that “fishers cite income as one of the reasons for not changing their occupation as well as a rationale for still becoming a fisher if they had their life to live over” (p. 543). Similarly, the results from this research indicated a high level of occupational satisfaction as well as a high level of reported sufficiency in the catch. The participants from this study were considered representative of artisanal fisherfolk in the Philippines. Whilst such fisherfolk may be “paper poor,” in the sense that they do not have disposable incomes, this does not translate to having a poor quality of life (Fabinyi, 2007). Instead, it was deduced that the fisherfolks' quality of life was perceived as being quite high.

#### *5.2.6 The effects of increased incomes*

Considering the data-depicted satisfactory realities of the participants, the question arises, how income-generating activities, as expected from livelihood diversification opportunities, would affect the participants. At first glance, it would be expected that a general increase in income, whether it be from higher catches or supplemental livelihoods, would translate to an increase in savings; however, this may not hold true within the cases studied. Buckley (2012) explains, “at local scale, in developing nations tourism wealth buys guns, fishing boats, chainsaws,

livestock, and labour, with costs to conservation and equity” (p. 530). Responses from some interviewees alluded that increased income may not be used to further the household. Some participants reported using discretionary income for gambling or alcohol purchases. During an interview session, a secondary female respondent justified this type of incidental purchase stating, “sometimes they [the men] need the wine.” While this could be a case of supporting or condoning the desires of the head of the household, such a reference may also represent more serious issues including alcoholism (Kissling et al., 2005) or displays of masculinity (Acheson, 1981; Fabinyi, 2007) often associated with alcohol consumption that are outside the realm of this research.

In other cases, some of the twenty-something male interviewees reported going to town to buy “fashionable” clothes. It was further observed that some of these younger male interviewees had permanently coloured their hair. This may be an additional indication of the youth applying surplus earnings towards “mainstream” fashion rather than used for the advancement of the household. These findings are similar to the previous descriptions of Fabinyi (2007), who wrote:

Material objects of status are highly valued in this context, and so income becomes a means to enhance their status within this peer group. Money thus tends to be spent on flashy consumer goods such as motorbikes, alcohol, and clothes. (p. 524-525)

Based on these findings, and combined with evidence described in previous research, an increase in purchasing power to be expected with a livelihood diversification may not necessarily translate to a social benefit to the households or even contribute to economic gains. Thus, navigating these issues in the context of tourism development may prove challenging. This is not to say that such benefits are impossible. There is evidence to suggest that a focus on gender equality through the incorporation of women in livelihood diversification projects may offer some solution. Bennett (2005) noted that in addition to participation in the fishery, the women play a significant role in the household decisions “taking care of the family’s educational, health and dietary needs” (p. 451). However, Resurreccion (2006) argued that these roles coupled with the reproductive responsibilities and other household duties of

women, unless redistributed, limit the true availability of women for other income-generating activities. She went on to explain that the well-meaning inclusion of women in development projects may “inadvertently reproduce *gender* inequality” as, by “being women and considered as ‘housewives,’ their time and labour are often assumed as being infinitely elastic” (Resurreccion, 2006, p. 444).

While this research did not address gender roles and other gender-related issues, females, including housewives and mothers, were represented in the samples. Rather than being asked to report their availability, participants were asked their willingness to partake in tourism as a potential for livelihood diversification opportunities. Although this question could have been modified to consider the actual availability of both female and male participants, it was deemed to have adequately addressed the concept of free time by considering the willingness of participants. Personal observations showed that with the exception of those tending to small children, the female participants from this study were seemingly idle, having time to spare. Additionally, none of the female participants made references to being too busy or overworked. Contrarily, during some of the interview sessions, some of the male participant responses indicated refusing work offers because it was too far away or unneeded (summarised under occupational control in Table 4.3). Though these types of responses bode well for availability, they also seem to depict a reality in which leisure and rest time is valued and expected.

Throughout the Philippines, even in more formal occupations (e.g., customs offices), it is common to observe workers napping on the job; additionally, there may be masseuses offering at-desk massage services for a small fee (personal observation, October 19, 2011). During some interview sessions, which all occurred between the hours of 10:00 - 16:00), other household members were observed napping or resting. Sometimes these people became secondary participants and were comfortable doing so from a prone position. While these descriptions may be a result of incorrect observations, the so-called relaxed realities of the fisherfolk surveyed are regarded as being more closely associated with a languid pace of the fishing culture and lifestyle. As Acheson (1981) elucidated:

Fishermen are not oriented to an ordinary business schedule, but to a world in which time is reckoned in terms of trips and tows, and in which one's schedule and decisions depend on the habits of the animal and the weather. (p. 282)

The prioritisation of rest and leisure may influence the outcomes of potential livelihood diversification opportunities. For example, tourism activities often rely on consistent and punctual schedules, therefore, reducing opportunities for leisure, rest and refusal of work for those involved. The changes required for some roles associated with tourism (e.g., tour guide, boatman) may prove challenging or unwanted for fisherfolk accustomed to a culture with relatively few punctual demands. These types of formalities may be unexpected or unwelcomed by those accustomed to a fishing lifestyle.

The true availability of fisherfolk as well as the consequences of the suitable role and inclusion of women in livelihood diversification opportunities was not specifically explored in this research. However, based on the portrayed realities of the participants, it was concluded that the participants from this research as well as the resource stand to benefit from livelihood diversification options. This is supported by previous development efforts from within the Philippines. In particular, female participants of existing development projects aimed at providing livelihood diversification options in the Philippines have described positive results from participating in livelihood diversification projects (RFLP, 2012). For example, a described benefit included a reduction in gambling as a result of reduced leisure-time. An additional and unexpected benefit resulting from Filipino women's participation in the RFLP livelihood diversification efforts was a reduction in "gossips," or the spreading of possibly false rumours. The social benefit of a reduction in "gossips" is notable in relation to this research as throughout the surveys, the participants placed a high value on the potential social benefits of livelihood diversifications (see Table 4.13).

For men, it is anticipated that tourism development would create additional opportunities for unskilled jobs outside of fishing. Past observations have shown that fisherfolk may adopt roles as labourers, tour guides or boatmen (Fabinyi, 2010). Sobhee (2006) observed that as a result of

the construction of hotels and the associated multiplier effects, lower-skilled positions such as cleaners, waiters, and security guards were created. These are in addition to other easily learned positions associated with development such as painters, maintenance workers and construction labourers.

The economic benefits associated with such “sidelines” may be enhanced through access to a tourism market. For example, many of the handicrafts such as products from the commonly reported sidelines of “mat weaving” (see Figure 5.1) are sold at various markets and tourist destinations throughout the Philippines at prices that far exceed (e.g., at least a 400% mark-up) what the artisans are paid for their crafts (Floren, 2003; personal observation, 2011-2014). Vadakepat (2013) described a similar scenario from India in which private merchants who control the craft markets hinder the profit margins of the artisans. Therefore, in the case of women artisans, it is likely that an increased access to consumers through tourism may lessen the role of the intermediaries, thus, increasing the direct economic benefits to the artisans (Paddison, 2007; Vadakepat, 2013). The findings suggest that many adult members of fishing households have adequate “spare time,” and given the potential for economic gain, as well as the potential to reduce dependency on the marine resource through livelihood diversification, there is potential for fisherfolk participants to benefit from livelihood diversification projects.



Figure 5.1: Woven mats sold at “upscale” markets. The quoted price for one of these mats was around 60 US dollars.

#### *5.2.7 Occupational satisfaction*

Occupational satisfaction within fishing communities is often found to be high, even considering the risky nature of the business and the questionable returns on effort and the transient lifestyle often associated with fishing livelihoods (Acheson, 1981; Fabinyi, 2007; Muallil et al., 2011, Pollnac et al., 2001). Thus, it is a long held notion that an important livelihood quality for fishers is the ability to be their own boss (Muallil et al., 2011). The fishing way of life is, in itself, a culture (Pollnac et al., 2001; Green et al., 2003). Beyond the independence of self-leadership associated with fishing, Fabinyi (2007) describes other pull factors of fishing stating, “fishing is a gamble and an opportunity for male fishermen to demonstrate their masculinity, economic prowess, and value” (p. 519). While many fishers in the Philippines, including some of the participants of this study, are financed, meaning that

they are indebted to a financier and are therefore not entirely “their own boss,” they still have the ability to choose when and where to fish.

Acheson (1981) in his description of “fishery switching” or the common oscillation between fishing and other jobs in response to uncertainties, summarised the affection towards fishing writing, “in many societies with a mixed economy, the cultural and emotional significance of fishing far overshadows that of agriculture” (p. 291). Fox (1978), attempted to capture the allure of fishing stating, “but somehow [the land] does not have the same emotional quality as do the boats. No one ever died digging potatoes; there is no danger planting barley” (p. 130). Acheson’s (1981) observation of fishery switching was characteristic to the communities surveyed in this research, where many participants were involved in fishing as well as agriculture and other sideline activities (see Figure 4.5). The participation in fishing alongside other sideline activities is what Cinner and Bodin (2010) referred to as a “livelihood landscape.” Through the livelihood landscape approach they were able to acknowledge the interdependencies and varying degrees of importance of the livelihood occupations and were able to analyse these data in relation to development. Their findings indicated, “fishing households in less developed communities were likely to supplement fishing, whereas fishers in a wealthier community were not as likely to have an occupation less important than fishing” (p. 8). Though this research did not investigate fisherfolk from wealthier communities, the frequent supplementation of fishing through sideline activities reported by participants from this study is suggestive of the transferability of Cinner and Bodin’s (2010) findings.

Overall, the majority of study participants expressed a general contentment with their livelihoods. In his analysis of previous research of cross-cultural cases regarding satisfaction with fishing, Acheson (1981) provided a summary of reasons fisherfolk enjoyed fishing. These included traits common to fishing such as independence, the associated challenge (both physical and mental), the ability to work outdoors, a lack of regimentation, potential income, the pleasurable nature of the activity, and the gaming aspect of fishing (Acheson, 1981). Similar themes emerged from the participant responses in this study (refer to Table 4.3). Thus, the reported occupational satisfaction of participants found in this study is well supported by the

literature (e.g., Acheson, 1981; Fabinyi, 2007; Muallil, 2011; Pollnac et al., 2001). This finding makes it questionable whether or not fisherfolk would even desire or succeed with formalities required by a different livelihood such as tourism (e.g., showing up on time, abiding to a consistent schedule).

#### *5.2.8 Synopsis*

Regardless of the perceived quality of life and occupational satisfaction, as Béné (2003) found, interpreting poverty is difficult. For a fishing demographic who is dependent on a resource in decline, a Malthusian perception must be acknowledged. However, based on the evidence presented, particularly the discussions concerning occupational satisfaction and the effects of increased incomes, understanding the true effects of poverty remains challenging.

This section has used qualitative measures to allow participant realities to be defined by combining perception-based data regarding changes in the fishery, daily catches, daily expenses and occupational satisfaction to describe fishing as a livelihood and as a lifestyle. From the data it was apparent that the fisherfolk from this research identify positively with fishing as a livelihood. Despite a few responses about the dangers of fishing, and dissatisfaction with the catch, the majority of participants, while somewhat curious about potential benefits associated with a diversification in tourism, expressed generally contentment with their current livelihoods and lifestyles. These types of data are important for any development strategy involving a livelihood diversification, as a lack of motivation on behalf of the fisherfolk for change will likely deter livelihood diversification efforts.

Regardless of the reported current satisfaction with the fishing lifestyle, the state of the resources on which the participants are dependent upon must still be addressed. The following section addresses this gap by building on the perception-based data presented in this section and through the combination of perception-based data regarding the resources collected during the study with quantitative catch data as suggested in the literature (L. Bunce et al., 2000). The success of nature-based tourism, which is often a default diversification strategy for coastal communities (e.g., Orams & Forestell, 1995; Quiros, 2007), depends on a healthy marine



environment. Additionally, past literature has emphasised the need for efficient communication channels through community inclusion to achieve successful livelihood diversification (Beeton, 2006; Johnston, 2006; Mensah & Amuquandoh, 2010; Towner, 2014). The following section builds on the data presented in this section to analyse the perceptions about current communication channels between institutions, stakeholders and the fisherfolk, as well as drivers in illegal fishing and other issues affecting the marine environment.

### **5.3 The marine environment: Fisherfolk perceptions of the current state of the marine environment and the marine management strategy**

Sobhee (2006) found biodiversity of the fisheries to be an influencing factor in tourism earnings. Likewise Bell et al. (2006) describe losses in biodiversity through destructive fishing methods to be parallel to “lost opportunities for coastal communities to earn sustainable incomes from coral reefs” (p. 976). This section builds on the previous findings regarding the absolute and factual realities associated with the socio-demographic fisherfolk data and delves deeper into the nuances associated with fishing lifestyles. In doing so, it explores the data relative to the second research question regarding the perceived state of the marine environment and the perceived effectiveness of the current management regime by fisherfolk. Understanding fisherfolk perceptions regarding these elements contributes to the understanding of the viability of tourism as a livelihood diversification strategy for fisherfolk in terms of perceived need for diversification and existing communication channels. Specifically topics such as management responsibilities, involvement of the *barangay*, the effects of fishing and other issues affecting the marine environment are discussed. The interview instrument used in this research relied upon a perception-based inquiry to determine the local community and key informants views on the state of the resource and it explored issues pertaining to dependency on the resource.

#### *5.3.1 The resource*

The current state of the local marine resources was examined through a series of questions that provided means of a modified triangulation of the data (Denzin, 1970). The main topics used in

the fisherfolk interviews to depict the reality of the resource were perceived changes in the fishery, attitudes towards illegal fishing, average catch and perceived personal impacts on the fishery. The first point, perceived changes in the fishery, addressed fisherfolks' perceptions of changes in both fishing practices and the average catch over the span of the last decade. Fisherfolk have previously been used as sources to identify changes in the fishery and to provide evidence of shifting baselines (see M. Bunce et al., 2009). While not all participants from this study responded, of those who did, most reported a degradation of catch. Only one reported an increase in catch while the remaining respondents reported it was about the same. Garces et al. (2013) found similar discrepancies in perception-based data about the fisheries. In their work in the Calamianes, fisherfolk reported a degradation of the resources when scientific data showed no change or improvement in the resources. Garces et al. (2013) attributed this type of discrepancy to factors including shifting baselines and specificity with components of the resource. Potential discrepancies were addressed by a question asking how participants' fishing methods and locations had changed over the past decade; however, it was decided that clearer and more specific questions would have produced more accurate responses. Although some participants reported needing to go further out to sea to achieve the same results (catch) as previous fishing efforts, the majority reported no change in their fishing practices.

### *5.3.2 Catch*

A second point used in the data triangulation, the average catch, included matters such as reported daily catches as well as perceived sufficiency of these catches. The most common reported catch was 5-10 kilograms per day (see Figure 4.7). These catch data are consistent with those reported by UNFAO (2004). This indicated that the daily catch in the Philippines has dropped significantly since the 1970s, when it was common for municipal fishers in the Philippines to haul average catches of 20 kg per day (UNFAO, 2004). This degradation of the fisheries in the Philippines is mirrored elsewhere in the literature (e.g., Ahmed et al., 2007; Baticados, 2004; Cruz-Trinidad et al., 2011; San Diego-McGlone et al., 2008; White et al., 2000). Based on such evidence, it is plausible that those fisherfolk who reported increased or stagnant catches may have adapted their fishing practices in response to a declining fishery (Baticados,

2004; Fabinyi, 2007) and that the use of more efficient and possibly illegal methods may be the reason the catch has remained consistent or even improved.

To further understanding the perceived state of the fisheries, the satisfaction with the current catch was explored (see Table 4.2). The majority of fisherfolk were satisfied with the current catch, albeit the reported perceptions of a degrading catch. As suggested by the research of M. Bunce et al. (2009), the responses describing a decline in catch through shifting baselines indicate that the fisherfolk have an understanding of the environmental changes occurring in the nearby resources. Therefore, while a degradation of the fisheries would seemingly contradict a satisfaction with the current catch, it is a possible result of being able to achieve a subsistence lifestyle. In terms of subsistence fisheries, Clifton and Majors (2011) argued:

The absence of linear continuity and causation in this concept of time has clear implications for conservation, as it implies that present-day fish catches are a result of contemporary rather than past fishing effort, while future catches will be determined by future effort, not any present-day activity. (p. 721)

On this assumption, being able to make ends meet, despite a reduction in catch is thus, perceived as being “enough.” For those who felt the catch was not enough, blame was placed on factors such as illegal fishing (specifically transient fisherfolk or outsiders using illegal methods), commercial fishing, and migrant or transient fisherfolk adding pressure to the resource. The blame being placed on outsiders was mirrored by the findings of Fabinyi (2012). Reasons for dissatisfaction with catch varied slightly among the three research sites. Most notable, all of the fisherfolk surveyed in Decabobo felt that the catch was “enough.” In Victory and Dimipac, blame was placed on influential factors that have been well reported in the literature from research in the Philippines including illegal fishing (e.g., Dalabajan, 2009), competition from commercial fisheries (e.g., Eder, 2005), influx of migrant fisherfolk (e.g., Fabinyi, 2008), and seasonality of the fisheries. It is unclear why there was such a discrepancy between Decabobo and Dimipac as the location of the two research sites was expected to have produced comparable seasonality of the fisheries and occurrences of illegal fishing and

competition. Therefore, the differences in perception in catch between Decabobo and Dimipac are likely a result of acquired attitudes towards fishing. These differences may result from the different sub-cultures of the area as the Calamianes are described as an area with diverse cultural groups (Dressler & McDermott, 2010).

#### *5.3.3 Perceived personal impacts on the fishery*

Within the data it was apparent that blame for environmental degradation was placed outside of the participants' personal realm. This was evident as respondents used pronouns such as "they" or "them" rather than "us" or "we," when describing commonly identified negative activities. This placing of blame was further explored by analysing the perceived impact of fisherfolk activities on the marine environment. Issues such as gear selection, drivers in the use of illegal fishing methods and other issues concerning the marine environment are discussed in this section.

Not a single participant felt that their personal gears had any negative effect on the environment. It was inferred through multiple references to the use of legal gears that any gears deemed legal by BFAR were "good" for the environment. Based on these responses, it seems that participants did not view by-catch or derelict gear as issues. By-catch and derelict gear may be considered abstract issues, creating comprehension difficulties within the participant group (L. Bunce et al., 2000). Alternatively, the idea of by-catch may not be applicable to this demographic with the exception of inedible (toxic) reef fish, since most species that are caught are consumed regardless of size. Likewise, derelict gear may not have been perceived as a problem given the fact that terrestrial and marine littering was commonplace (personal observation, February 2011 – April, 2013).

#### *5.3.4 Drivers in the use of illegal fishing methods*

While the personal involvement with or use of illegal fishing methods was not explored due to ethical concerns, multiple participants indicated using or having used illegal fishing methods. All participants were questioned as to why they felt others used these gears (see Table 4.8). The

three themes that emerged were desperation, personal prerogative and that illegal fishing requires less effort. What was marked was the frequency with which these themes were reported. Only one participant reported being too fearful to use illegal fishing methods. The low occurrence of fear as a preventative driver in the use of illegal fishing methods is not unforeseen given the negligible chance of prosecution (Dalabajan, 2009). Twelve participants cited reasons of despair (e.g., poverty, limited opportunities) and another twelve felt that people used illegal fishing methods because it was easier and provided a greater return for effort expended. Poverty and limited opportunities were cited as reasons under the theme 'desperation.' These have been previously described as drivers in the use of illegal fishing methods (Schmidt, 2005). However, none of the participants made a connection that a decline in catches triggered the use of illegal fishing methods. Though a degradation of the fisheries was not directly identified in participant responses, it is possible that this driver was absorbed under the theme 'requires less effort.' This interpretation is supported by an example in the literature from the Philippines that described an increase in the use of illegal fishing methods as a common response to a decline in the fisheries (Baticados, 2004).

A less understood theme that emerged was that of personal 'prerogative.' While just five participants agreed this was the reason behind illegal fishing, the laissez-faire attitude in their responses was important. These five participants were represented by the statement, "it's their choice." It is accepted that people cannot be held responsible for the actions of others; however, in the case of fisherfolk who are part of a tightly knit community and whose neighbours are often kin, this type of response demonstrated a lack of the importance placed on community responsibility. Not only did the responses show approval (through acceptance) for those acting outside of the law, but they also placed these respondents in a position of inadvertent authority through the admittance that others have the ability to choose which laws to follow. It was unlikely that the fisherfolk from this research identified themselves as people in the position to create laws. Therefore, these types of responses could be indicative of a personal justification of the use of illegal fishing methods. For example, it is plausible that these respondents could have been utilising illegal fishing methods and have chosen to do so as a personal choice. By identifying this choice to use illegal fishing methods as a personal

prerogative, it could be considered a case of self-justification. Alternatively, the identification of personal prerogative as a driver in illegal fishing could be viewed as a neutral response indicating that these participants have not experienced any negative effects and are therefore complacent. However, as described by Dalabajan (2009), the use of illegal fishing methods is not considered a criminal risk. Additionally, Fabinyi (2007) explored illegal fishing from a perception of masculinity, noting that the bravado associated with the illegal actions may have meanings much greater than a reduction in effort or an increase in catch. Based on the low-risk, high return and social “benefits” of illegal fishing methods, the theme ‘prerogative’ has been interpreted as an acceptance of illegal fishing despite the potential environmental and social costs, and also perhaps as an admittance of use of the practice.

The emergent themes resulting from the questions regarding illegal fishing depict a culture familiar and comfortable with destructive and illegal fishing methods. While none of the participants thought that their personal gears had any negative impacts on the marine environment, it was clear that all participants understood the concept of illegality associated with the use of illegal fishing methods. Overall, personal fishing efforts were not identified as a causative effect in the degradation of the marine environment. Further, there was only one reference to the negative impacts to the environment associated with illegal fishing methods (see Table 4.8). This may be a result of a general disregard for the marine environment, or it may result from the perceived insignificance of long-term effects for a society who functions using a subsistence strategy (Clifton & Majors, 2011). The latter is the most likely scenario, as most of the fisherfolk fish from vessels and do not venture under water and dive on the reefs (personal observations, November 2011 – April 2013). Those who do dive on the reefs often rely upon makeshift equipment (e.g., dive mask constructed from recycled tires and glass) and, therefore, may not be able to competently observe or understand the destruction resulting from dynamite or blast fishing.

From a management perspective, the lack of attention given or priority placed on conservation of the marine environment is both concerning and alarming. This lack of general regard for the marine environment contradicts the findings of Launio et al. (2010) who found Filipino fishers

felt a duty to protect the marine environment as well as a willingness to financially and socially support MPAs and marine conservation. This is notable as the pro-conservation attitudes reported in Launio et al. (2010) are in direct contrast to the actual behaviour of many Filipinos (Dalabajan, 2009), including those from the fisherfolk studied in this research. There is widespread and continued use of illegal and destructive fishing methods in the Philippines (White et al., 2000), with reportedly over 10,000 cases daily of blast fishing (Antiporda, 2012) despite widespread advocacy and work to reduce such destructive practices. With limited long-term regard for the environment, the opportunities for livelihood diversification through tourism development, especially nature-based tourism, become further narrowed.

#### *5.3.5 Responsibility for marine management*

The previous section highlighted a widespread lack of awareness for the effects of fishing (both traditional gears and illegal fishing methods) on the marine environment. This section explores additional data from the interviews regarding participant understanding and awareness of the existing marine management scheme. This included data regarding the responsibilities and the efficacy of current marine management efforts and programmes, which are in turn brought into the discussion.

#### *5.3.6 Marine management efforts*

White, Courtney and Salamanca (2002) described decentralisation and the involvement of coastal communities in coastal resource management projects as the two main influential factors in the marine management strategy in the Philippines. This research explored both of these factors through questions regarding the responsibilities for marine management and the local management efforts.

Participant responses placed a high level of management authority on the municipality and the local *barangay* units (see Figure 4.9), thus, reflecting the decentralisation described by White et al. (2002) of the fisheries management scheme. This is reflected in Article I, Municipal Fisheries of the Philippine Fisheries Code of 1998, which states:

The municipal/city government, in consultation with the Fisheries and Aquatic Resources Management Councils (FARMC) shall be responsible for the management, conservation, development, protection, utilisation, and disposition of all fish and fishery/aquatic resources within their respective municipal waters. (BFAR, 2010b, n.p.)

It was apparent that the role of the LGUs, as intended by the legislation, was understood by fisherfolk. Unfortunately, the perceived effectiveness of the role of the *barangay* and/or municipality was underwhelming (see Table 4.5). All of the participants were from communities where fishing was a primary livelihood and a source of subsistence. From the adjectives used by some of the participants, such as “lazy” and “weak,” it seemed that this question evoked an emotive and negative response. The responses of some participants who answered that the *barangay* was active were coupled with a giggle. Therefore, based on the multiple mentions of the inactivity of the *barangays* and the body language of some participants, it is plausible that some of the participants who answered that the *barangay* is active may have felt obliged to respond in a positive manner.

Most participants could list some kind of *barangay* “management effort,” but often struggled with the details (e.g., identifying the location of an MPA). This is to some extent in contrast to previous literature, which has described conflicts between resource users and resource managers (e.g., Christie, 2004; Fabinyi, 2007; Fabinyi, 2008; Oracion et al., 2005). The inability of respondents to correctly describe marine management efforts could have been a result of poorly worded questions. For example, the failure to mention *bantay dagat* in Victory was likely a result of a disassociation with the programme as a marine management tool. This interpretation was drawn based on the presence of a *bantay dagat* (the local guide) during all Victory interviews. In addition, another response indicating a misunderstood question was in regards to the fish pens near Victory. One respondent mentioned these as a marine management tool; however, the fish pens were later cited by other interviewees as being an issue negatively affecting the marine environment. The literature has shown that the fish pens in the Bolinao waters have contributed to severe environmental degradation (Cruz-Trinidad et al., 2008; San Diego-McGlone et al., 2008). Therefore, it is interpreted that both a lack of



awareness and a misunderstanding of the question were contributing factors to the low awareness of marine management efforts.

The responses indicated that participants desired a stronger *barangay* leadership. This management void would likely produce similar challenges tourism development. The next section goes deeper into the exploration of the perceived state of the marine resources by exploring participant-defined issues presumed to be negatively affecting the marine environment.

#### *5.3.7 Other issues affecting the marine environment*

The data regarding other issues affecting the marine environment continued to be centred on illegal fishing (see Table 4.9). This emphasis on illegal fishing as a main issue affecting the marine environment may have been a result of the interview structure. The three previous questions each addressed illegal fishing issues. It was initially assumed that by following this structure, other issues beyond illegal fishing methods would emerge. Only two other topics emerged, outsiders and natural calamities. Other notable issues that have been documented throughout the Philippines include unregulated ornamental fish collection (Nañola, Aliño, & Carpenter, 2011) and marine pollution associated with development (Ong et al., 2011).

Specifically, in the various research sites major environmental events have occurred within the last decade. For example, in 2010 there was a widespread coral bleaching event reported in the Calamianes (WWF, 2010). Likewise, there have been multiple fish kills resulting from nutrient loading in the waters near Victory (San Diego-McGlone, 2008). Besides illegal fishing, the minimal attention given to other issues contributing to the degradation of the marine environment was in contrast to previous research (see Casiwan-Launio et al., 2011; Klint et al., 2012; Launio et al., 2010). Within the Philippines, Casiwan-Launio et al. (2011) found that Island Villagers were generally willing to work or pay for monitoring and enforcement of the marine resources. Within this study it was difficult to draw a similar comparison based on the differences in research design. However, it was evident that while fisherfolk were aware of the declining catches, they were not seemingly concerned. In contrast to this and to the findings of

Klint et al., 2012, all key informants were both well aware of and concerned with the current degraded state of the marine resources. Based on personal experiences and observations, it is anticipated that the awareness of the marine environment and associated marine conservation issues found in the key informant sample is not entirely transferable to the general population (non fisherfolk) of the Philippines or even expatriates who are not in frequent contact with the marine resources. For example, it is common for publications tailored to expatriates (e.g., American Women's Club of the Philippines monthly periodical, *Inklings Magazine*) to describe island destinations with abundant reef fishes and resources, including portraying the controversial swim-with whale-shark programmes as entirely positive. Additionally, one of the key informants was unable to identify some fishing methods as more sustainable than others. Such unfamiliarity with the fisheries and their effects on the marine environment is predicted to be commonplace among university-educated individuals in the Philippines and elsewhere. Additionally, as documented by this research, this knowledge gap may be observed in persons who work closely with fishing communities.

Overall, the minimal attention given to other issues affecting the marine environment outside of illegal fishing was interpreted as an effect of the absence of perceived linear continuity and causation within the artisanal fisheries (Clifton & Majors, 2011). For example, while it is understood that fisherfolk would be able to observe events such as coral bleaching or a massive fish-kill, the interpretation and thus, the ability to report such events may be distorted. For members of remote fishing communities, it is possible that these types of events would be explained through a philosophical interpretation (e.g., fatalism) rather than an interpretation grounded in science. Fatalistic outlooks have been previously documented in fishing communities as a way to negotiate both personal and environmental risks associated with fishing activities (Allison & Seeley, 2004; Fabinyi, 2012; Marr, 1982; Poggie, Pollnac, & Jones, 1995). As Marr (1982) noted:

A more widespread constraint [to managing Southeast Asian artisanal fisheries] is the sense of identity with nature. This leads to what might be termed a 'fatalistic' view about

what happens including what happens to fishery resources, rather than to the more Western view that the course of events can be altered by human actions. (p. 302)

During the course of the interview sessions, there were multiple references to personal success (of the catch and/or afforded opportunities) being dependent on God's will. By acknowledging God's will as a reason for effects of environmental degradation, personal responsibility is thus, removed from the equation. The use of theological views as justification for a declining resource compounds the absence of a linear continuity and causation. The coupling of theology and the absence of linear continuity and causation make the personal actions of fisherfolk (even destructive ones) inconsequential to the resource in their minds.

#### *5.3.8 Synopsis*

The perceptions of the fisherfolk depict simple realities. Artisanal fisherfolk are a vulnerable demographic and are subject to social and political manipulation. Political manipulation of fisherfolk has been well described in the literature (e.g., M. Bunce et al., 2009; Dalabajan, 2009, Hollup, 2000; Pomeroy et al., 2006). This vulnerability is confounded by the lack of linear continuity and causation within a subsistence fishery (see Clifton & Majors, 2011). Thus, the reported lack of awareness of issues affecting the marine environment and the inability to identify potential impacts of the legal artisanal fishery are likely the results of external rather than internal influences. These findings become significant in the context of development. In terms of the development of tourism the described vulnerabilities of the fisherfolk, leave this demographic susceptible to many risks. The next section delves deeper into viability of tourism as a development strategy by discussing the fisherfolks' awareness of and exposure to tourism.

### **5.4 Defining tourism in remote fishing communities: Levels of understanding of tourism and tourism activities within remote artisanal fishing communities**

As this research sought to explore the viability of tourism as an alternative livelihood for remote fisherfolk in developing nations, it was pertinent that the awareness of and knowledge about tourism be established. The idea of tourism as a livelihood diversification strategy is not a new

concept for artisanal fisherfolk (Cheong, 2005; Cruz-Trinidad et al., 2009; Hooker & Gerber, 2004; White et al., 2000). However, unlike other livelihoods such as seaweed farming or agriculture, most employment opportunities from within the tourism sector require social interactions with visitors. In the context of a remote community in a developing nation, the differences between the social and cultural desires and needs of the residents and tourists may prove challenging (Buckley, 2012). Likewise, one of the key informants explained the risks of assuming that remote fisherfolk would not be able to understand the wishes of a comparatively complex demographic (the tourists). Thus, it is deduced that a sufficient understanding of the industry, including the potential desires of tourists would be a predictor of success. The findings from this research indicated that recreational tourism is a largely foreign concept to remote artisanal fisherfolk. This section explores the findings of the various components related to tourism through the perceptions of the fisherfolk. The subjects used to depict the awareness of tourism with this remote audience were largely perception-based. These included the ability to define and show an understanding of tourism, the ability to identify and describe existing and potential tourism assets, and general feelings towards visitors. However, there were some non-perception based elements such as places travelled and means of exposure to tourism. Together these provided strong points for comparison to reveal a portrayal of the understanding of tourism and tourism activities within remote artisanal fishing communities.

#### *5.4.1 The term "tourism"*

There has been limited research about tourism awareness within recipient communities of community-based tourism (CBT) projects (see Diedrich & García-Buades, 2009; Saarinen, 2010). Saarinen (2010) found that although exposure to tourism was high, the awareness about the sector was relatively low. The findings from this research involved audiences with limited exposure to tourism, however, produced similar findings. Diedrich & García-Buades (2009) found that as tourism development increased, so do local perceptions of the positive and negative impacts resulting from tourism. The reported understanding of the term tourism was varied (see Table 4.10). In all three research sites some participants declared full or partial understanding; likewise, some participants declared no understanding. The participants from

Decabobo were identified as being the least familiar with tourism. However, it is possible that the understanding of the term tourism could have been over reported. This assumption was made based on the few participants who claimed an understanding of tourism and went on to elaborate on the term. After analysing the narratives, it was apparent that even those stating they had a full understanding of the term may have been confused or had an entirely different perception of tourism than those looking at the term from a Western perspective.

While Dimipac Island and Santiago Island (location of Victory) could be considered more physically remote than Decabobo, there are tourism attractions on both islands thus, contributing to an increased exposure to the industry. Neither community reported active participation in these tourism activities; however, it is likely that the passive exposure contributed to the reported familiarity with tourism. While there could have been other subtle factors that contributed to the difference in understanding of the term tourism, exposure was interpreted as being the obvious causative factor for this difference.

Similar to the comparative case studies of Saarinen (2010), this research addressed means of exposure to tourism. The exploration of this topic was somewhat limiting in that the instrument only addressed the means of exposure as a component of understanding. An actual definition of tourism was not collected, nor agreed upon as part of this research. However, beyond the participants' self-stated familiarity with the term tourism, the exploration of the additional themes indicating exposure to tourism (see Table 4.11) combined with places travelled (see Table 4.12), ability to identify tourism assets (see Figure 4.10 and Table 4.14) and feelings toward visitors (see Table 4.13) improved the trustworthiness of the data within this topic of tourism awareness. This triangulation was guided by the description of Denzin (1970), who wrote, "by selecting dissimilar settings in a systematic fashion, investigators can discover what their concepts (as designators of units in reality) have in common across settings. Similarly, the unique features of these concepts will be discovered in their situated context" (p. 310). In the framework of this research, the "dissimilar settings" were the topics relating to tourism understanding (e.g., familiarity, exposure, experience and feelings). These comparisons produced a six-point triangulation within the data that has been represented (see Figure 5.2).

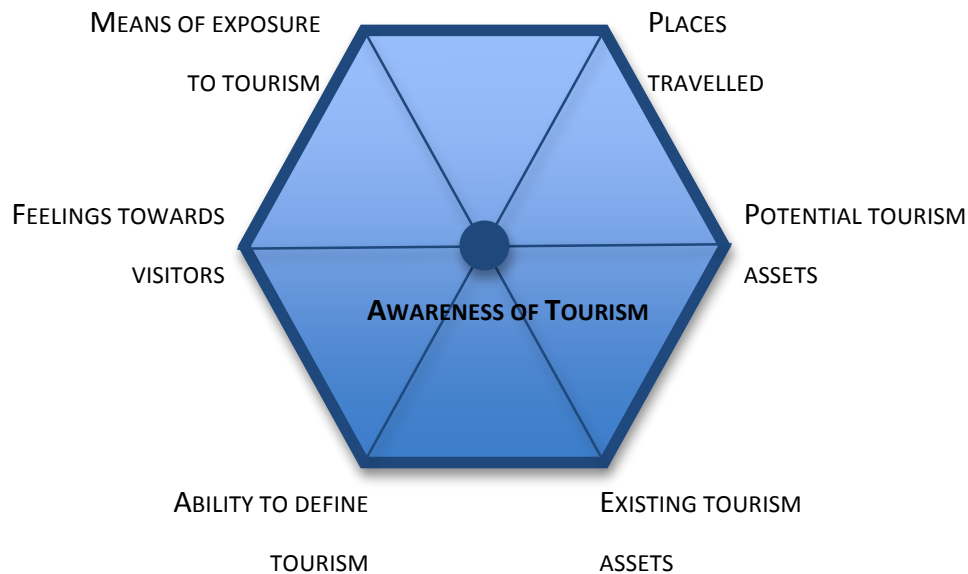


Figure 5.2: Triangulation of the tourism awareness data. The point of comparison, in this case the awareness of tourism within the fisherfolk audience, is represented by the pyramid's apex. The base of the pyramid is figuratively grounded in literature. The six elements of data provide increased opportunities for cross-comparisons.

With the exception of Saarinen (2010), there has been little attention given to understanding the awareness of tourism from the target and receiving audiences of tourism development initiatives. While the impacts of tourism development on fishing communities have been somewhat explored through both changes in livelihoods and resource competition (Cheong, 2005; Eder, 2005; Fabinyi, 2010) this has often been done post tourism development. As a result, the understanding or awareness of tourism prior to tourism development initiatives pre-development by remote fisherfolk is largely absent in the literature. Saarinen's (2010) exploration of tourism awareness used similar methods to investigate rural tourism initiatives in Namibia making the study a good candidate for comparison. Calling for further research on this topic, Saarinen (2010) suggested that tourism awareness be considered a catalyst, stating, "it can bind the benefits, control and participation together in CBT development by empowering the local people. It can also indicate how well the communication channels within

the community and between different stakeholders operate” (p. 722). This call for action was considered critical to the exploration of the viability of tourism as a livelihood diversification strategy for remote artisanal fisherfolk. It is apparent that the topic of tourism awareness deserves further attention to enhance the benefit of social capital associated with community-based tourism (Okazaki, 2008) and to lessen the objectification often characteristic to CBT of communities and community members (Saarinen, 2010).

Overall, this gap in the literature regarding tourism awareness makes a comparison of the findings to the previous research challenging. However, the triangulation of the awareness of the term tourism with methods of exposure to the term and places travelled an objective produced a reliable description of tourism awareness. Additionally, by applying the findings from similar exploratory research, such as Saarinen (2010), to the results from this study, some parallels were drawn. For example, the minimal awareness of tourism activities documented in the two cases explored by Saarinen (2010) bodes well for the findings of this study.

#### *5.4.2 Tourism assets*

To further strengthen the interpretation of the data regarding tourism awareness, the ability to identify existing and potential tourism assets was explored. Kerstetter and Bricker (2009) used photo elicitation combined with interviews to achieve a similar goal. Kerstetter and Bricker (2009) argued, “through interactions with tourists, residents have become more cognisant of their past and the value of sustaining it” (p. 703). This idea, that sharing a resource through tourism experiences effectively increases awareness and value of the resource, may help to explain the results from this study.

Although the majority of participants were able to identify at least one type of existing tourism locations (see Figure 4.10), many did not perceive activities such as beach tourism and island hopping activities as being transferable to their own communities. As all research sites fronted a tropical marine environment suitable for various water-sports activities (e.g., boating, diving, island hopping), this inability to consistently identify tourism resources was remarkable. To ensure this was not a result of a flaw in the interview instrument, modifications were made

immediately and continued throughout the interview sessions. This was achieved by asking participants to identify existing tourism destinations and/or attractions within the near vicinities of the research sites and by shifting the inquiry to the first person of the researcher (e.g., “what would you show me if I came to visit?”).

#### *5.4.3 Potential social and environmental tourism assets*

Potential environmental tourism assets were identified at all three research sites; however, participants from Victory were the only ones to identify potential social tourism assets. These identified social assets all focused on the culture of the community. These included examples of sharing various cuisines (e.g., fresh fruit, dried fishes) and livelihood activities outside of fishing such mat weaving. Further, members of Victory offered to make introductions and establish friendships between locals and outsiders. This was similar to Kerstetter and Bricker (2009) whose research found residents placed a high value on their social relationships. While not reported as a theme, pride was inferred from the social responses and was, therefore, interpreted as a driver in the identification of potential social tourism assets. The ability to identify potential social tourism assets identified by community members from Victory was interpreted as a result of experiential exposure (Saarinen, 2010).

The emphasis on potential social tourism assets in Victory was in contrast to the responses collected in Decabobo and Dimipac. In both of the latter locations, participants only identified potential environmental tourism assets (refer to Table 4.14). The idea that outsiders would have any interest in the lives of the fisherfolk seemed humorous to some of the fisherfolk as two participants from Dimipac literally laughed at the idea that there was something of interest in their own environments to outsiders.

In contrast to the research of Saarinen (2010) whose participants focused heavily on the social tourism assets, participants from all three research sites were able to identify potential environmental tourism assets. Themes included conservation projects, scenery and fauna. The idea that conservation projects can be used as a tourism attraction has been proven in the literature through both educational and conservation tourism (Buckley, 2010; Christie et al.,



2005; Garrod & Wilson 2004; Hooker & Gerber, 2004; Orams, 2004; Orams & Forestell, 1995), and volunteer-based tourism (e.g., Brightsmith, Stronza, & Holle, 2008). Likewise nature-based tourism is a well-documented sector (see Tisdell & Wilson, 2010). Compared to previous research (e.g., Diedrich, 2007), little emphasis was placed on the value of the coral reefs. This difference was deemed a result of reduced exposure to tourism activities.

The majority of differences in the data were attributed to an effect of differences in exposure to tourism. For example, one participant household (husband accompanied by a wife identified as a secondary participant), who sidelined in the shell trade, discussed the concept of souvenirs and gifted clean cowrie shells to the primary researcher. This response represented a unique case within the data as the same participant household, when asked, was able to identify the sea as a valuable tourism resource identifying potential tourism activities such as beach going, swimming and island hopping. However one notable case emerged. This particular distinction was from one Decabobo participant's stated inability to "own" the ocean. This is in contrast to much of the literature that describes the ocean as a "common" (e.g., Harding, 1968, Pomeroy et al., 2006; Sobhee, 2004). As this view was singularly expressed, the driver was unclear. Culture was explored as a driver behind this statement. Cultural linkages, or more specifically ethnicities of participants, were identified by analysing the first language, or mother tongue of participants. Due mainly to political interferences, one of the key informants explained that it is not uncommon for fisherfolk to evade questions about their ethnicity. Therefore, the method used in this research (asking first language) was regarded as both a culturally sensitive and accurate method of capturing information about ethnicity. All participants from Decabobo reported Tagbanua as their first language; thus, it was assumed that all participants were of Tagbanuan descent.

The Tagbanuan have been formally granted ancestral title to the land and sea thus, giving them the legal right to the use of ancestral waters. While this legal entitlement would seemingly benefit this indigenous group, Dressler and McDermott (2010) noted that as an effect of the class status, Tagbanuan fall in a position below that of migrants. Additionally, Dressler and McDermott (2010) explained the shortcomings of ancestral domain rights, suggesting that *title*

be given so that the indigenous peoples have a chance at securing actual land rights. The current struggle to prove ownership of the ancestral domain may have been an influencing factor in the participants' perception about not "owning" the ocean.

Overall, exposure to tourism seemed to be the main indicator for the fisherfolk in their ability to identify potential tourism assets within or near their communities. As most notably, the ability to identify potential social tourism assets (e.g., cultural tourism activities, food tourism) was only documented in participants from Victory. Therefore, it was concluded that an increased exposure to tourism through visitors was a significant factor in the ability to identify tourism assets. This interpretation has been summarised in Figure 5.3.

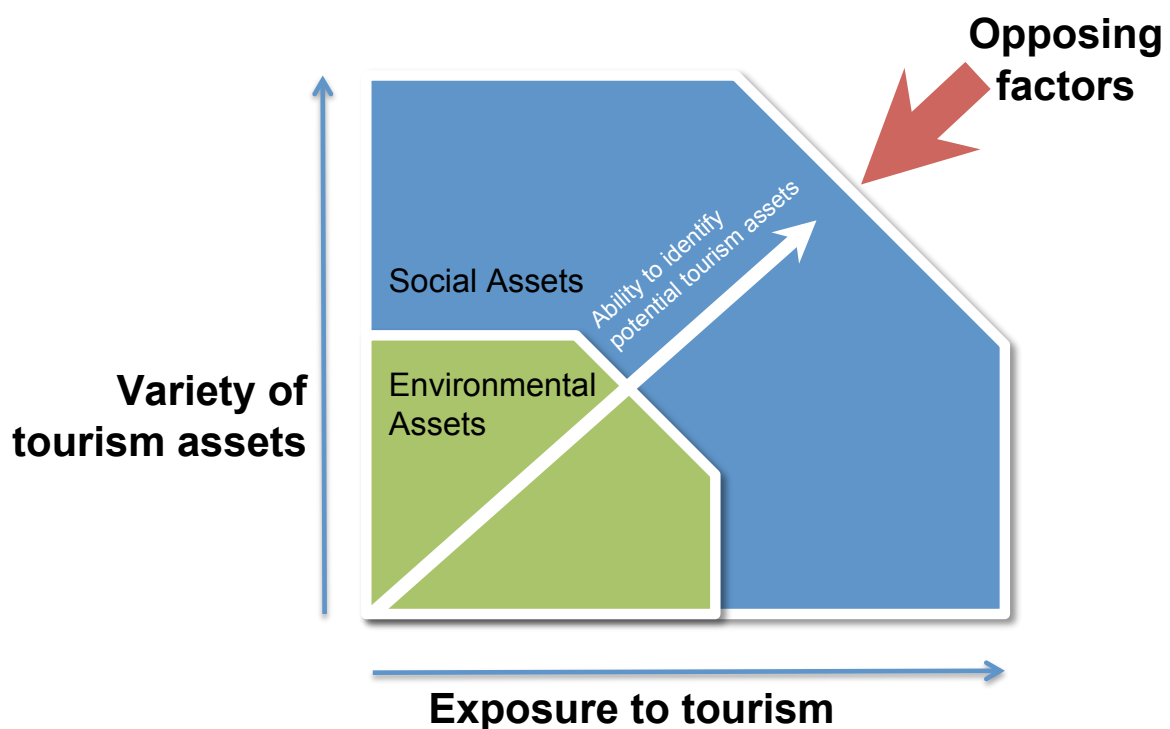


Figure 5.3: The effects of exposure to tourism on the ability to identify potential tourism assets.

As depicted by Figure 5.3, fisherfolk with more familiarity with and exposure to tourism were able to identify both potential environmental (e.g., beach) and social (e.g., culture) tourism assets, while those with less exposure and familiarity to tourism were only able to identify potential environmental tourism assets. Opposing factors were included in the figure to

represent the differences between two seemingly similar participant groups. In the case of this research indigenous culture was identified as an opposing factor on the participants' abilities to identify potential tourism assets.

#### *5.4.4 Methods of exposure to tourism*

A third point used in the measure of tourism awareness was exposure to tourism by participant-identified means of exposure and through places travelled. Participants, when asked how they came to know tourism listed means of exposure through experience, from the media or through social exposure among their peers (see Table 4.11). At best, the exposure to tourism of participants from this study could be considered limited, with social exposure via word of mouth being one of the most common methods of exposure in both Victory and Decabobo. Experiential exposure was high on Dimipac Island where, pending suitable conditions (e.g., weather, bookings) a dive boat frequents the nearshore waters daily. Saarinen (2010) found a similar emphasis on experiential exposure to tourism in areas where interactions with tourists were common. Saarinen (2010) concluded that even in areas where exposure to tourism and interactions with tourists were reportedly high, a comprehensive awareness regarding the potential risks and benefits of tourism remained low. Outside of the single household that described the concept of souvenirs, there was little mention of entrepreneurial opportunities associated with tourism. An exception to this were two mentions, one from a Victory participant and another from Dimipac, who presumed that they could rent their boats to tourists. The overall lack of entrepreneurial motivation is likely a result of a lack of understanding of tourism and is likely, in part, due to a difference in culture and lifestyle.

For future comparative purposes Figure 5.4 was created to reference the current state of tourism and tourism exposure based on evidence from the research sites. The different dimensions associated with tourism development are presented as axis in Figure 5.4.

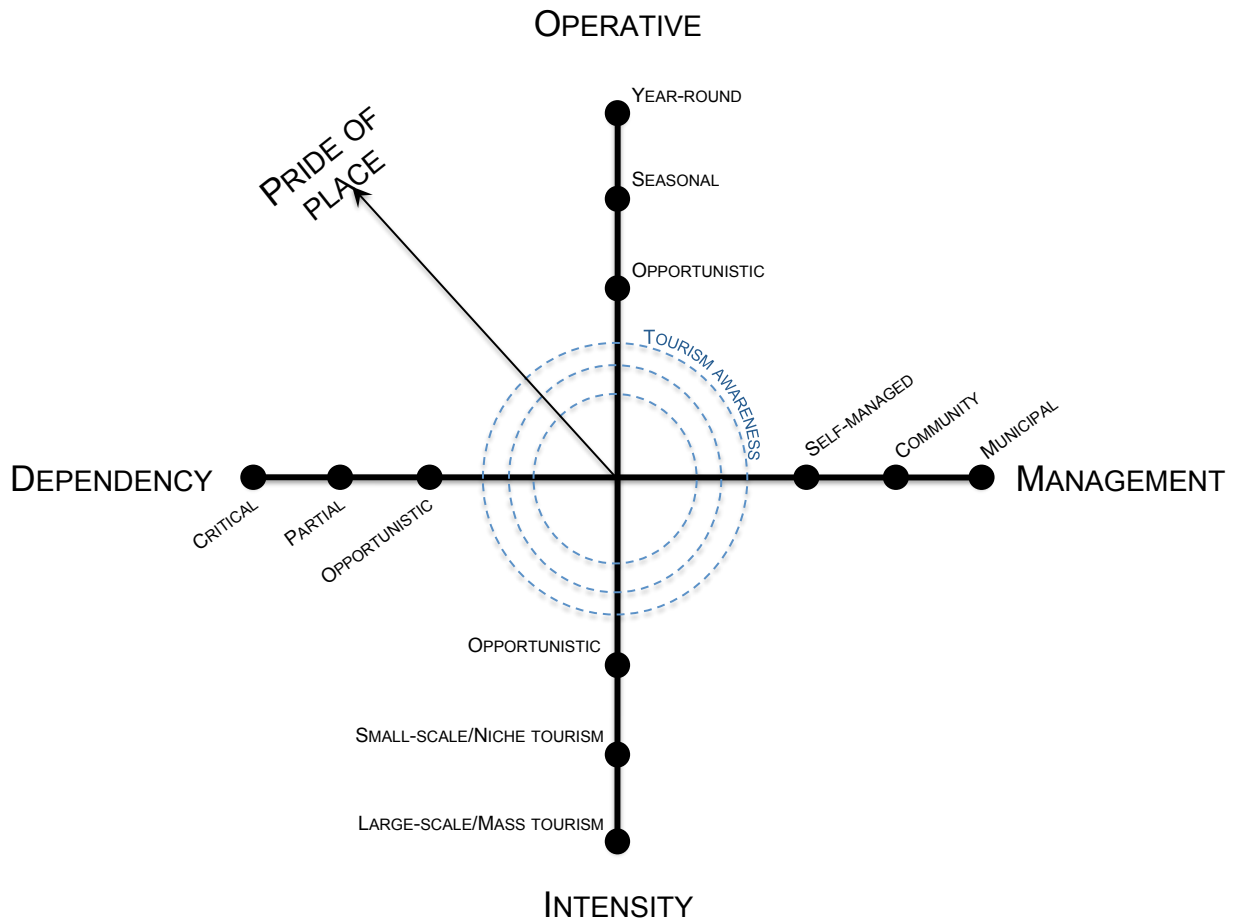


Figure 5.4: Audience awareness and pride as a result of tourism development.

This model attempts to offer a baseline and scale for different areas based on the logical progression of tourism development based on observations from natural growth predictions. Increasing tourism awareness has been represented by outward radiating rings. These dimensions were revealed from comparisons within the data regarding awareness and exposure. The model assumes a linear growth. Therefore, growth beyond opportunistic opportunities, would likely reflect an increased economic dependence (Saarinen, 2010) and eventually create a default need for management within the sector (Fabinyi, 2010), thus, resulting in a somewhat concentric growth in operation and intensity. Based on the research of Saarinen (2010), it is unclear if tourism awareness would improve as the levels of exposure reach further rungs of the axes. However, based on the findings of Kerstetter and Bricker (2009), it was predicted that pride of place would increase with tourism development and more

specifically with as an increasing economic dependency on the tourism sector an element of tourism awareness (Saarinen, 2010). Noting that conflict can and often does arise from tourism development (Fabinyi, 2010), pride in place was represented as an additional and independent axis.

#### *5.4.5 Places travelled*

The World Tourism Organisation defines tourism as “a social, cultural and economic phenomenon that entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes” (UNWTO, n.d.a). Collectively, there was a high occurrence of domestic travel among participants and their families. Therefore, while the movements of participants of this research could technically be defined as tourism, it was clear that the purpose of the described movements were not in any case viewed by participants as being for recreational purposes. Regardless of the motivations for travel, the collection of places travelled by participants provided an additional means of measure for experiential exposure to tourism.

Although the Republic of the Philippines is commonly classified as a developing country, its role in the international work force is unique. Over ten percent of the country’s population is engaged in overseas work (Custodio & Ang, 2012). Nititham (2011) described the dependence on Overseas Filipino Workers as a cultural capital in the Philippines. Though the cultural role of OFWs (Nititham, 2011) were outside the realm of this research, the experiential exposure associated with linkages to OFWs was considered an influencing factor in the understanding of tourism in this demographic as there was evidence that some fisherfolk families, especially in Victory, were linked to OFWs through remittances (personal communication, A. Menez, February 20, 2014).

The factors contributing to participant worldview as relative to tourism are depicted by Figure 5.5.

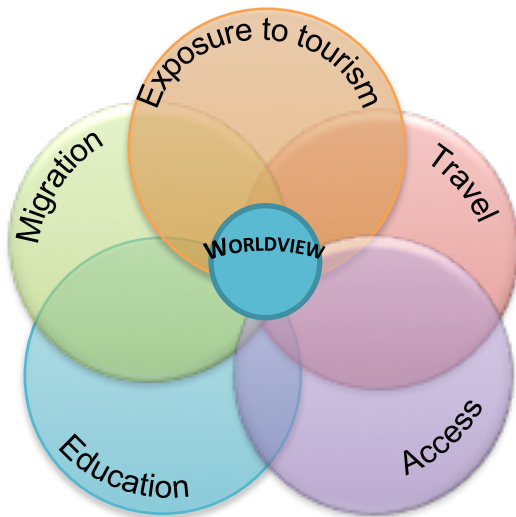


Figure 5.5: Factors contributing to worldview of remote artisanal fisherfolk. Though additional factors contribute to worldview, the presented factors were deemed to be most relevant and influential in determining tourism awareness and understanding among fisherfolk.

#### *5.4.6 Feelings towards visitors*

Kerstetter and Bricker (2009) wrote, “interactions with tourists have expanded residents’ worldview— for better or worse” (p. 703). Tourism has the ability to preserve unique cultural skills, such as mat weaving, among others, if such skills are incorporated into the tourism product (e.g., in the form of souvenirs or activities). However, it may also lead to environmental resource degradation due to inadequate planning and infrastructure (Kerstetter & Bricker, 2009). Further, the results from Saarinen (2010) research revealed that some community members felt objectified by the tourists; these participants likened themselves to animals being observed. This finding was mirrored by the musings of a key informant from this research who made a similar comment. The key informant in emphasising the importance of communication channels stated, “they [fisherfolk] will be like animals in the zoo where people come in, and look at them, and observe them without getting any benefits from them [tourists]. That doesn’t

justify a tourism project at all.” The participant-identified feelings towards visitors were explored as a final point for triangulation within the data (Denzin, 1970) surrounding tourism awareness (see Table 4.13).

#### *5.4.7 Perceived effects of visitors*

Though the majority of participants welcomed the idea of visitors, there were slight differences between the research sites, specifically the mention of potential negative impacts of visitors and also a noted indifference towards visitors. Feelings of indifference were reported in both Decabobo and Dimipac. Some participants in Decabobo specifically referred to the colour (e.g., race) of visitors as being “white.” This was similar to the descriptions of tourists found by Saarinen (2010) who struggled to identify nationals as being tourists or visitors. However, contrary to Saarinen (2010) who reported perceived sarcasm towards visitors (e.g., tourists wearing bush clothes in the city), the participants from this study expressed the differences in race and colour only as observable differences. There were no indications that these differences were either negative or positive.

In general, a notable finding was the positive social value associated with the idea of visitors. In all three sites, at least some participants were simply “happy” at the idea of welcoming visitors. This finding was further supported by participant actions toward the research team. Throughout the data collection, the research team was not only welcomed, but also given priority by the participants. At no time were feelings of hostility or annoyance with the process perceived.

Consistent throughout the research sites, some participants specifically referred to the joy of “seeing a new face” and the ability to “hear news” (refer to Table 4.13). These types of responses were coded under “change of pace.” There has been little attention given to this type of social development of fisherfolk. Thus, the results from this study offer significant insights to previously unexplored areas of potential benefit. Based on the emphasis given to seeing new faces, making friends or hearing news, in the context of remote fishing communities, it is assumed that a tourist or visitor would provide a break in the monotony of

day-to-day life where external stimulation (e.g., cell phone, internet, television, radio) may be limited or non-existent.

The stated desires to interact with or learn from visitors bode well for tourism as a diversification strategy. However, what remains unknown is how such actions would take place. Personal observations revealed that many of the fisherfolk participants were somewhat shy, and further, only a few spoke enough English to facilitate a basic communication. For example, the level of English spoken by the local guides from each of the three sites was considered basic at best. Thus, it is expected that the lack of hospitality skills and language skills observed within this demographic would influence tourism outcomes. In terms of the fisherfolk, however, the introduction of tourism would likely have a beneficial result on their language skills. As one of the key informants explained from experience in other areas in Southeast Asia:

I came to [country in Southeast Asia] first in 1982 and almost no one could speak English and now they've had massive amounts of visitors to [country in Southeast Asia] making it one of the number one tourist destinations in the world and the level of English has changed dramatically.

Though the language barrier would likely be seen as an initial challenge, language barriers have been previously overcome in other areas as explained by the key informant's example.

A final perceived positive social effect was pride of place. This feeling was specific to Victory where five participants associated visitors with feelings of pride with both place and self. Pride was earlier identified as a phenomenon of exposure (see Figure 5.4). Exposure was again identified as a driver of pride in this case as participants from Victory, compared to participants at the other two sites, had experienced a greater level of experiential exposure to visitors.

The perceived negative effects of visitors were only represented by two secondary female participants through a single response. This comment was unique in that it was one of the only times during the data in which a potential risk associated with visitors and tourism was identified.



Though the comment itself addressed the loosening of a once more conservative culture (specifically attire), it was perhaps not intended to be a negative description. Both women agreed that what was once seen as inappropriate behaviour was now accepted as normal. However, because these women felt strongly enough to voluntarily contribute this type of information to the interview, it was decided that this response represented a deeper issue. One of the key informants noted a similar effect of tourism in a Southeast Asian Muslim country, where the “loose” dress code of tourists (e.g., bikinis and “resort” wear) had caused cultural erosion. In terms of tourism as a livelihood diversification strategy, such an issue can be navigated; however, it would seemingly require a participatory approach that includes specific attention during the planning stages of diversification and continued reinforcement and re-evaluation.

What was marked was that the comment was prefaced with a description of tourists’ activities. The elderly woman offered a description of a “common” tourist activity. This comment referencing visits to the “dance place” was dually reported in the results, both as an existing tourism asset and as an effect of visitors to the community. Only later during data analysis, did I associate a possible underlying meaning of this comment. Unfortunately, there was not an opportunity to confirm with the participant the intended meaning of the statement. Thus, the lack of participant evidence makes the interpretation a supposition based largely on observation. The existing tourism activities near Dimipac, based on price (accommodation upwards of \$200 USD per night) cater towards foreign tourists or upper class Filipino tourists). From personal experience from living in the Philippines for more than two years, it is commonplace to observe intercultural “relationships” mainly between male Westerners and Filipinas. Though not always the case, large age disparities are commonly seen in these intercultural, with the Filipina characteristically being the younger of the two. This observation is supported in the literature with a long history of human rights issues including the sexual exploitations of Filipinos (Mendoza, 2003; Nubla, 2009; US Department of State, 2012).

In terms of tourism, is common for tourism establishment to have rules about prostitutes and “joiners” (see Figure 5.6). Based on such observations and evidence in the literature, the

association of the interviewee between effects on culture and tourists visiting the dance hall, as a possible reference to potential sexual exploitation or culturally “inappropriate” relations. This interpretation of the data reveals an important consideration of human rights for remote communities wanting to share their place with visitors.

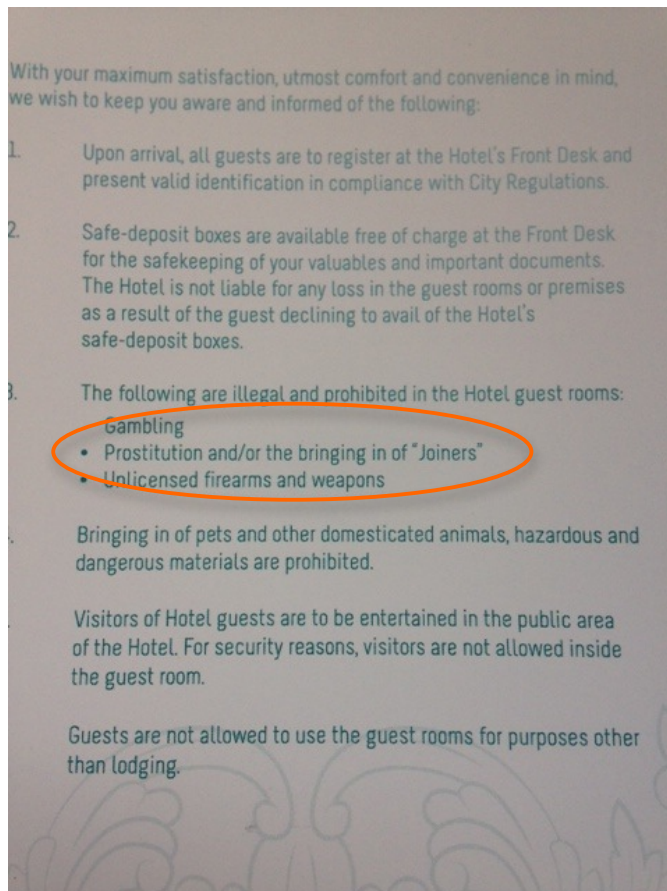


Figure 5.6: Rules concerning “joiners” at the Costabella Resort. The Costabella is advertised as “a luxury beach resort awarded by the Philippine Department of Tourism with the highest resort classification” (Costabella Tropical Beach Hotel, 2011).

#### 5.4.8 Synopsis

This section of the discussion addressed a general awareness surrounding the tourism sector with three communities of fisherfolk. Based on these points of concurrent comparison, it was apparent that the knowledge of tourism within the surveyed fishing communities was

extremely limited. In general, the worldviews of participants were thought to have been limited by their economic status. The travel movements of participants occurred only out of necessity. Some had never left their birth province. This general lack of awareness of tourism was in line with the findings of Saarinen (2010) who found participants in a developing nation struggled to define tourism awareness.

In regards to this body of research, the comparative approach afforded through the triangulation of the data limits the ability to argue that communication barriers or flaws in the instrument contributed to participant misunderstandings. Thus, it was concluded that participants' understanding of tourism was sufficiently reported and that this understanding was low. Overall, the participant responses demonstrated a familiarity with the concept of visitors through social identification. However, while many welcomed the idea of visitors, the inability to cite potential risks associated with visitors or the inability to identify changes resulting from visitors (Saarinen, 2010) was again identified as a consequence of exposure, or lack thereof, to the tourism sector. The relationships between the characteristics identified as affecting the level of exposure to tourism are summarised in Figure 5.7.

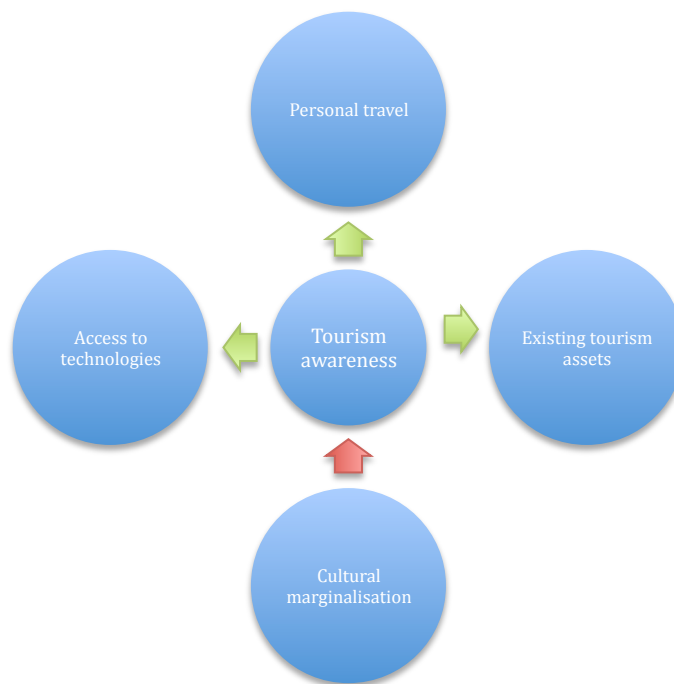


Figure 5.7: Summary of factors influencing awareness to tourism in a remote fishing community. The green arrows indicate factors that contribute to increased tourism awareness, while the red arrow indicates the opposite effect.

As depicted in Figure 5.7, access to technologies (e.g., cellular phones, television), personal travel and existing tourism assets were found to be factors that increased tourism awareness. Contrarily, the effects of cultural marginalisation of indigenous peoples, in this case the Tagbanua peoples, was understood as a factor that contributed to a decrease in tourism awareness.

This section has provided an argument supported by the literature that the communities from this study lack the necessary awareness (and, thus, the associated skill set) for success within the tourism industry. While it has been suggested that education be used to provide training in business skills for communities lacking such knowledge (Narain, 2012), such a process would require a long-term commitment and a significant financial investment to effectively provide the necessary extensive education, ongoing communication, assessment and institutional

support to thoroughly engage the community. Even then, there would be no guarantee that such preparation could sufficiently prepare the community to access and cope with tourism activities. The next section looks deeper into the effects of visitors as a result of tourism development by discussing the perceived risks and benefits of fisherfolk regarding a theoretical engagement in a livelihood diversification through tourism.

**5.5 Tourism as a livelihood diversification strategy:** What are the perceived costs and benefits (social, environmental and economic) of engaging in tourism as a livelihood diversification?

Awareness of a sector as a driver for livelihood diversification towards that sector is absent in the literature. The findings from this study provided evidence that describe a lack of awareness of the tourism sector and negligible voluntarily engagement in this sector. This section explores the relationship between the perceived effects of tourism on the main realms (environment, community and economic) of the participants. This section focuses the discussion on an evaluative comparison between the participants' abilities to identify costs and benefits of potential tourism development to lessons learned from previous development projects. In particular, the ethical concerns revealed in this research and those associated with a naïve audience are described in answer to the fourth and final research question.

Due to a gap in the literature addressing the awareness of tourism, the discussion in this section again relies heavily upon the exploratory results from Saarinen (2010). In his exploration of awareness post tourism development Saarinen (2010) remarked:

Although the small amount of data in this study does not support wider conclusions, it is generally interesting that perceptions of tourism impacts were not related to knowing about tourism activities or encountering tourists in the respondents' home areas or their personal background characteristics. (p. 721)

Thus, while logic would predict that a successful livelihood diversification towards tourism would hinge on participant understanding of the sector, Saarinen's (2010) research suggests otherwise. His findings concluded that direct economic effects from the tourism industry, specifically economic benefits, were the most accurate predictors of awareness. However, the

scope of such awareness was quite limited. These findings reveal ethical challenges for the current development strategies. Based on the theory of knowledge as power (Foucault, 1980; Sachs, 1992), Saarinen's (2010) findings challenge the foundation for community-based tourism or pro-poor tourism whose strategies focuses on community empowerment (Armada, White, & Christie, 2009; Bauer, 2005; Croes & Vanegas, 2008; Laws, 2009; Mensah & Amuquandoh, 2010; Mograbi & Rogerson, 2007).

Thus, the findings from the previous literature create a confusing challenge for project timelines; it becomes a situation of prioritising ethics or economics. This creates a logistical challenge for those wishing to meet the ethical goals generally associated with development strategy. Thus, the findings presented thus far revealed an additional research question:

*How can tourism as a livelihood diversification strategy be manipulated to provide access for a remote audience with little understanding about the sector?*

This section seeks to provide a foundation for answers to this question through the discussion of results relevant to the fourth research question regarding perceived costs and benefits of tourism development across environmental, social and economic realms. This section concludes by using the participants' reported willingness to engage in tourism combined with evidence from the key informants to confirm the interpretation of the data.

#### *5.5.1 The environment*

Previous studies have emphasised or suggested the ability of tourism to act as an agent of environmental conservation (e.g., Christie et al., 2005; Garrod & Wilson 2004; Hooker & Gerber, 2004; Orams, 2004; Orams & Forestell, 1995). Alternatively, research has demonstrated tourism development as a contributor to environmental degradation (Ong et al., 2011; Quiros, 2007). There is some agreement within the literature that if tourism is to be effective as an environmental conservation strategy, it must be well managed, well understood, and involve and engage the community in the planning process (Beeton, 2006; Himmetoglu, 1996; Johnston, 2006; Mensah & Amuquandoh, 2010). Throughout this research, fisherfolk

participants struggled to associate their own fishing activities and actions as having any effect (positive or negative) on the marine environment. The theoretical discussion of the potential effects of tourism on the marine environment was no different. In all three research sites, the most common response was that tourism would have “no effect” on the fisheries or marine environment (see Table 4.15). The idea of fisherfolk activities as having a nil effect on the environment has been previously documented in the Philippines (Fabinyi, 2012). None of the fisherfolk participants from this study perceived tourism development to be associated with what could be interpreted as posing literal risks to the environment. The qualifier “literal” was used in this case to explain environmental risks that have been previously linked to tourism such as various types of pollution (Buckley, 2012) or damage to marine organisms through reef trampling or marine specimen collection (Mola, Shafaei, & Mohamed, 2012; Rouphael & Inglis, 2001; Sarmiento & Santos, 2012).

In Victory, one participant identified tourism as having a negligible effect on the environment, noting that tourists are “just looking,” and therefore, “do not destroy” the environment. Two fisherfolk responses, which represented a total of four participants from Dimipac, identified tourism as having a positive effect on the environment describing tourism and responsible ecotourism as being synonymous.

The idea that all ecotourism is environmentally sound has been proven inconsistent by examples in the literature (e.g., Ong et al, 2011; Quiros, 2007). As Orams (1995) explained, “considerable debate exists over where eco-tourism can be sustainable and what management regimes/strategies can be employed to minimise the negative impacts which are associated with anthropogenic influences on natural ecosystems” (p. 5). Likewise, the idea that tourists do not “destroy” the environment has been proven inconsistent with multiple examples of the impact of visitors negatively affecting the environment in the marine context through actions including, but not limited to, reef trampling (Sarmiento & Santos, 2012), damage to marine organisms (Rouphael & Inglis, 2001), and the collection of marine organisms for souvenirs (Mola et al., 2012). These examples in the literature were supported by the observations of one

key informant who noted that many of the tourist resorts cater to the palates of tourists ignoring regulations and keeping species of overexploited fish species on the menus.

Contrarily, in Decabobo, one participant felt the owners of the large resorts were ruining the fisheries. As this participant was unable to elaborate, it was possible that this statement was one of hearsay and that the actual effect of the resorts is not well understood or authenticated. However, a second comment from a participant in Dimipac offered insight into the Decabobo participant's comment about the effects of resorts on the fisheries. In Dimipac, one interviewee described the social impact of resorts that have restricted use of the nearshore waters stating:

Tourism has affected fishing in the sense that the places rented by private resorts we are not allowed to fish so now we have to go further. Instead we use to fish nearby, now we move further out because we cannot fish near the beach resorts like [club name].

Eight other participants agreed with this comment regarding [club name]. In multiple resort areas in the Philippines it is common for resorts to establish and enforce a MPA in the nearby waters. Some of these MPAs are legally established while others are not. Therefore, based on some of the second explanations from the Dimipac participant, it was interpreted that the reporting of such "negative" effects in both cases were a result of the resorts reducing access to fishing grounds in order to protect the reef nearby the property, often referred to as a "house reef." Past studies both within the Philippines and elsewhere have identified issues between stakeholders from the fisheries and the tourism sector, and more particularly, conflicts regarding reduced access from the creation of MPAs (Christie, 2004; Fabinyi, 2008; 2010; Oracion et al., 2005).

Within the Philippines, it is common for resorts to protect their "house reefs" through a type of self-regulation or vigilante enforcement. According to two of the key informants and supported by personal observation, examples of self-regulation as a conservation strategy have been associated with the recovery of the reefs in different areas of the Philippines (e.g., Batangas "house reefs"). This vigilante method of enforcement, while legally questionable, has proven extremely effective. It was noted that all key informants felt that resorts or tourism



establishments had the ability to contribute to marine conservation through the establishment of MPAs.

#### *5.5.2 The community*

Tourism development carries a long list of potential social risks to the host community, especially in the case of a remote community in a developing nation (Johnston, 2006). Fabinyi (2010) suggested that the social benefits of tourism development on fisherfolk are ambiguous at best. The data from this research (see Table 4.16), with the exception of one response, revealed that participants were unable to identify any potential social risks to the community associated with tourism development. These findings were comparable to Saarinen (2010) whose findings showed that the majority of participants did not feel that existing tourism or the potential loss of tourism had or would have any effect on the community. Similar to the responses regarding potential effects of tourism on the marine environment, the most common fisherfolk response was that of potential tourism development having “no effect” on the community. There was an observable disparity between the research sites with all of the Decabobo fisherfolk indentifying a nil effect on the community. However, some participants from both Victory and Dimipac responded by describing economic benefits as a potential positive effect on the community as a result of tourism development while others indicated potential social benefits such as the ability to observe or interact with a tourist or foreigner. In comparison, four of the five key informants identified potential social risks; however, of those that did, all felt such risks could be mitigated if given appropriate attention.

Within the literature, minimal attention has been given to an “undeveloped” community’s ability to perceive future risks associated with tourism development. There are, however, examples in the literature that highlight what could be considered transferable potential risks to any remote communities. One such example is cultural commodification, in which previously sacred parts of a host culture are exploited for economic profit and tourist satisfaction (Mbaiwa, 2011). Cohen (1989) referred to this as “staging” in which tour guides pay for the display of cultural practices, thus, increasing the frequency of such practices and as a result

reducing their authenticity. An additional risk associated with tourism development is the introduction of prostitution. Taylor (2006) explained, “one consequence of introducing affluent tourists to poor local communities has thus been the development of tourist-related prostitution” (p. 43). She further noted the occurrence of sex tourism and prostitution even within the formal tourism sector, as some of the lower paid workers supplement their earnings through sexual-economic exchanges with tourists.

The findings revealed that while the key informants were well aware of or had observed potential social implications associated with tourism development, the fisherfolk remained largely unaware of such risks. In general, the fisherfolks’ excitement about being able to observe or interact with a foreigner took precedence over potential negative impacts of tourism. In summary, these findings revealed a vulnerable audience and demonstrated what could be considered a dangerous social knowledge gap for the potential host communities. As Buckley (2012) stated, current contributions from the commercial tourism industry to the well being of communities are done, “only for legal compliance or cost cutting” (p. 534).

This section added evidence to support fisherfolk as a demographic that lacks the knowledge base or experience required to be able to identify the substantial social risks associated with tourism development. However, the recurrence of perceived social benefits throughout the data, such as the potential to see new faces, indicated that previously unexplored social benefits of tourism may encourage tourism participation in the fisherfolk demographic. This perceived preference for social interaction was unpredictable given that fisherfolk have been characterised as “aggressive, courageous, and independent” individuals (Acheson, 1981, p. 296). This finding regarding the desire for social interaction with outsiders adds to the literature on the previously overlooked field of social management within tourism (Buckley, 2012). Overall, the findings regarding potential costs and benefits to the community revealed any and all mitigation of potential social risks associated with development would require involvement from outside sources.

### 5.5.3 *The economy*

This section shifts the discussion to the perceived economic effects of tourism development on remote fishing communities. Economic improvement or poverty alleviation is a main goal of development strategy (Easterly 2006). However, the findings from this research revealed that the majority of fisherfolk did not associate direct economic benefits with the idea of development or livelihood diversification through tourism (see Table 4.17). This mirrored the findings of Diedrich (2007) who found that fisherman from a study in Belize considered tourism to have little effect on their lives. The perceived social benefits continued to outweigh other potential benefits reported by participants. In the context of reasons for implementing development or livelihood diversification, the low emphasis on economic gain was compelling. It would be difficult to find a person from any profession or nationality that would not be keen on earning more. However, fisherfolk may prove an exception to this as past research has demonstrated the attachment to the fishery to be influenced by non-economic factors (Muallil et al., 2011; Pollnac et al., 2001). While Muallil et al. (2011) found some fisherfolk reluctant to leave the fishery even when offered a theoretical incentive above their current income.

While there were some differences between the research sites, the most common response was that tourism would have “no effect.” This reported perception of tourism as having “no [economic] effect” was supported by the findings of Fabinyi (2010). His research suggested that the disbelief in the government by fisherfolk was a prohibitive factor in the ability to identify potential economic benefits associated with tourism development.

Exposure to tourism was again identified as being a predictor of participants’ abilities to identify economic effects associated with tourism development. Victory, the site with the most exposure to tourism, had the highest number of participants perceiving an economic benefit from tourism development. The majority of participants from Decabobo and Dimipac saw tourism as having a nil effect on the economy or on their personal finances. This was somewhat unforeseen coming from the fisherfolk in Dimipac, as they are able to frequently observe tourist activities from upscale resorts. However, as these tourist activities are entirely offshore,

the tourists and fisherfolk do not directly interact. Therefore, it was concluded that in the case of identifying potential economic gains from tourism, exposure through direct interaction with the tourism sector is required (Saarinen, 2010).

A trend similar to that observed to the previously discussed was the inability to identify potential economic risks. In the case of livelihood diversification, the introduction of a new sector has the potential to create a new dependency (Lepp, 2008). Based on the limited level of tourism awareness of the participants, it was not surprising that this demographic did not predict potential economic risks. However, from an outsider's socioeconomic perspective, there are many uncontrollable factors that have the potential to affect tourism that are worth mentioning. For example, events such as natural disasters, terrorism, and shifts in the global economy are influential to small economies (Pomeroy et al., 2001; UN Sustainable Development Knowledge Platform, n.d.) and, therefore, have the potential to negatively affect an economy dependent on tourism. These uncontrollable risks combine with the dependency on the fisheries for subsistence, pose many challenges.

#### *5.5.4 Willingness to engage in tourism*

This section argues the applicability of tourism as a livelihood diversification strategy by applying the findings from the stated levels of willingness to engage in tourism as a point of comparison for the perceived environmental, social and economic effects on the fisherfolk. Fisherfolk, especially those from remote artisanal fishing communities, represent a particular demographic in which occupational satisfaction and cultural attachment to fishing has been proven as high (see Muallil et al., 2011), despite the fact that earnings are low or inconsistent (Bene, 2003). This occupational satisfaction and cultural attachment to fishing was seen in the findings as a few participants were undecided when asked if they would like to engage in tourism activities (see Table 4.18).

In light of the participant responses found by this research, the reported willingness to engage in tourism partially contradicted the findings of Muallil et al. (2011) and Fabinyi (2010). The research of Muallil et al, (2011) documented a high heterogeneity in willingness to exit the

fishery, finding that fishers were likely to continue fishing despite declining catches; even when offered theoretical monetary incentives, some fishers were unwilling to exit the fishery despite the offer of theoretical substantial monetary rewards. Fabinyi's (2010) study showed that fisherfolk in the Philippines were often opposed to tourism development for fear of being excluded from the benefits. However, none of the participants from this study responded as "unwilling" to be involved in tourism activities.

Compared to Muallil et al. (2011), this study presented tourism as a potential and/or supplemental livelihood; the potential economic benefits were not defined, nor were there any theoretical benefits with incentives attached or described. Therefore, the stated willingness to accept tourism as a supplemental livelihood may be interpreted as a result of a difference in expected commitment (e.g., a supplemental livelihood versus a complete shift in livelihood). However, it could also be a case of participants not fully understanding what they are committing to, as the lifestyle changes and potential risks associated with a livelihood diversification towards tourism are significant.

The general willingness to participate in tourism development was consistent, although the findings suggested that respondents from both Decabobo and Dimipac were genuinely concerned about the "rules" associated with a livelihood diversification. These participants were only willing to attempt a livelihood diversification through tourism if the "rules," such as work hours and required efforts, were easier or more appealing than fishing. For example, one fisherfolk participant stated, "I would change if it is nice and the rules are good." Another possible interpretation of the findings may relate to Filipino culture. It is common in Filipino culture for an affirmative reply to have layered meanings and a "yes" can even be meant as a polite "no" (Roces & Roces, 2009). Therefore, some responses of willingness to be involved in tourism development, in particular the ones stating "why not?" may have been a form of cultural politeness and/or as an effect of pacifying the researcher, than an actual affirmative "yes." Clifton and Majors (2012) describe a similar scenario in which fisherfolk "reply in a manner that they perceive will gain credit with the interviewers" (p. 720). They go on to interpret this type of response as a precautionary action that "obviates the immediate potential

for disagreement with questioners who are commonly representatives of national park authorities or international conservation organisations” (p. 720).

The potential participant biases described by the literature makes interpreting an actual willingness to exit the fishery challenging. However, based on the consideration that some of the fisherfolk interviewees reported participating in opportunistic sideline jobs such as construction or painting, with the draw towards these vocations being consistent pay (set amount per day), it is expected that similar consistencies associated with more formal occupations may be enough to lure fisherfolk away from the fishery. Thus, it was assumed that at least some of the participants would take advantage of an available opportunity for consistent employment if given the means to do so.

Although tourism has been touted and promoted by governments, especially within the Philippines, as a “win-win” solution with widespread economic and environmental benefits, Fabinyi (2010) described the realities for fisherfolk from the Calamianes Islands in the vicinity of tourism development as being quite opposite explaining:

While tourism has offered alternative sources of income for some fishers—in the form of transport/guiding, employment in town at the restaurants, lodging, houses, and diveshops, or user fees generated through MPAs—another general consequence is that it has increased the pressure on coastal spaces, which are increasingly under pressure to facilitate the development of business opportunities for local elites. (p. 424)

As referenced by Fabinyi (2010), the distribution of benefits from tourism may be lost on fisherfolk. This is compounded by the reality that people from a marginalised group, such as artisanal fisherfolk, often struggle to move outside of their sector (Sobhee, 2006). The difficulties of exiting the fishery have been documented in the literature (Cinner et al., 2009, 2011; Sobhee, 2006; Muallil, 2011). Challenges in leaving the fishery are most commonly associated with limited livelihood opportunities (Muallil et al., 2011; Sobhee, 2006), a lack of transferable skills (Cheong, 2005) or a combination of the two.

#### 5.5.5 Synopsis

The interpretations that have been presented were supported and explained using examples from the literature, specifically in regards to potential costs and benefits of livelihood diversification and willingness to engage in such opportunities. Despite the risks associated with a lack of tourism awareness, an increasing decline in the resource may force fishers to change their perceived needs of livelihood diversification in the near future. Overall, it was understood that many members from the surveyed communities would willingly participate in livelihood opportunities associated with tourism development, if for nothing else, for the social benefit of seeing new faces (Porter & Orams, 2014). The potential for such a shift towards tourism is explored further in the following section through the experiences of two tourism operators working in remote artisanal fishing communities.

### 5.6 Exploring the potential for tourism development using documented tourism models

A good part of this chapter has focused the discussion on the fisherfolk. The interpretations presented thus far have outlined the potential risks and challenges for this demographic associated with tourism as a potential livelihood diversification strategy. This section discusses data from the key informant interviews, supported by *in situ* observations, with two representatives of the tourism sector. It provides a comparative discussion of two tourism development strategies currently being applied in three remote artisanal fishing communities within the Philippines. By exploring existing models, potential risks as identified by the fisherfolk data and the previous literature can be addressed. Contrary to the “warnings” in the previous literature regarding the constraints of exiting the fishery (e.g., Cheong, 2005; Cinner et al., 2009; Muallil et al., 2011; Sobhee, 2006), both key informants from the tourism sector have had generally positive experiences working with members from fisherfolk households. Each key informant has developed unique models for their respective tourism projects, which in both cases cater to surfers. This “coincidence” was one founded on pragmatism rather than serendipity. My personal experience with surf tourism provided a foundation for both comparisons and understanding within this type of tourism similar to the personal experiences and observations used in the research of Buckley (2002).

### *5.6.1 Adaptive tourism models being used in the surf-riding tourism sector in the Philippines*

To best describe the tourism models uncovered by this research, multiple definitions associated with surfing proposed by Orams and Towner (2013) have been adopted. First and foremost, this research considers surf-riding tourism to be: “the recreational use of waves where the participant has travelled for the purpose of riding these waves for enjoyment” (Orams & Towner, 2013, p. 175). Apart from common risks associated with tourism, surf-riding tourism carries its own set of unique characteristics and contingencies. While the general characteristics of the surf-riding tourist vary, many surf-riding tourists will sacrifice comfort for “good” surf (e.g., low crowds and good, clean waves), as Buckley (2002) explained, “surf tourists are surfers first and tourists second” (p. 414). In terms of risks, Orams and Towner (2013) described the potential for social conflict arising from exclusivity, which in this context would result from a reduction in access by tour operators in an attempt to keep surf breaks uncrowded or “private.” Additionally, Orams and Towner (2013) noted the potential issues stemming from “locals-only movements,” or what can also be referred to as localism. Localism occurs when resident surfers become territorial of their home surf break(s). From personal observation, “localism” does not appear to be prevalent in the Philippines and pales in comparison to other surf destinations such as Hawaii (Buckley, 2002). However, it is noted that this lack of “localism” could be a result from the low participation rates in surfing as a recreational activity in the Philippines.

Surf-riding tourism as a strategy for remote fishing communities may present some challenges. Access to the ocean may already be controlled by fisherfolk. As Buckley (2002) described “because traditional economies relied heavily on subsistence fishing, every village controls access to nearby seas and reefs, whether waves are breaking on them or not” (p. 421). Further, social risks that have been associated with surf tourism include the marginalisation of a community (Cater, 1993). This happens where residents become “second class citizens” and can no longer afford to live in the area as a result of tourism development (Buckley, 2002). In addition to social risks specific to surf tourism, there are environmental risks common to emerging surf-riding tourism destinations. Buckley (2002) described other environmental issues



(unrelated to surf tourism) as often being more pressing than ones resulting from surf tourism; however, he noted that the risks of biological and/or chemical water contamination associated with tourism growth have significant effects on small islands. The following sections discuss two tourism development models currently being applied to the surf-riding tourism sector in the Philippines. Both models are based on small-scale tourism developments with benefits relative to a single community. The first model has been applied in two communities and the second model is under development in a third community. All three host communities are part of the Luzon region of the Philippines. The communities in which the models been applied are classified as either third or fourth-class municipalities based on average income. However, municipal classification is an average of municipal income and does little to describe the realities of the smaller *barangay* units relative to each project. The host communities of Model 1 are less remote and are accessible (from Manila) via motorway in comparison to the host community of Model 2. The host community of Model 2 requires air transport from Manila and both land and water transport from the local airport. Additionally, the exposure to tourism varies between the communities as the two communities associated with Model 1 have higher levels of experiential exposure (including direct involvement) in tourism activities. The host community associated with Model 2 was included in the fisherfolk surveys and, following commensurations of the project associated with Model 2, would provide an opportunity for follow up interviews.

This is believed to be the first academic description of these two models of tourism developments; therefore, the methods and approaches being applied may offer new contributions to current tourism development strategy. Further, they provide examples of models that are considered potentially viable for and transferable to other fishing communities.

#### *5.6.2 Model 1: Default Participation Tourism Development*

This project began with the application of a business model that somewhat forced members of a coastal fishing community into a livelihood diversification through project participation. Therefore, it is described as the *default participation tourism development model*. The model is

based on a small-scale, low-budget, hostel-type tourism establishment that targets surf-riding tourists. Due to the average swell size of the nearby breaks, both hostels cater to what Orams and Towner (2013) describe as “casual surf-rider tourists” and “recreational surf-rider tourists” (p. 185). In contrast to much of the literature calling for community-centric planning (Beeton, 2006; Johnston, 2006; Mensah & Amuquandoh, 2010), the *default participation tourism development model* did not depend on community involvement or require community support in the planning stages. Instead, it is similar to an effect Junio-Menez (2001) described as a result of an implementation activity where community members participate through the provision of services (e.g., construction, monitoring and surveillance) and through functional participation (e.g., forming community groups to achieve project objectives).

The model, though simple, was considered innovative in that by only offering accommodation, it created an deliberate void in tourist-required services that required community participation in order to procure the additional necessary services (see Figure 5.8).

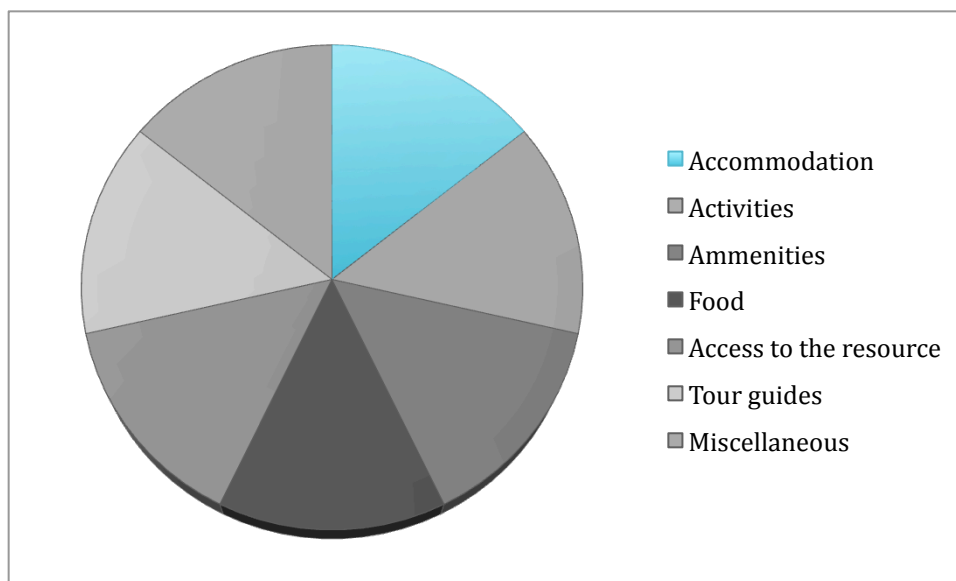


Figure 5.8: The role of the operator in the *default participation tourism development model*. The accommodation “piece” of the tourism product is represented in colour to depict the service provided by the operator.

Figure 5.8 describes the narrow role of the operator. The remaining “pieces” are depicted in greyscale and represent areas and services that must be filled by the community. The necessary services have been depicted only for visual representation. Thus, scale and importance are not accurately represented by this figure.

By only offering accommodation, the tour operator not only relies upon the community to provide the required basic services for the guests (e.g., food, rentals, surf lessons), but also engages in an automatic relationship with the host community. This engagement creates a relationship of mutual dependency and of trust. The trust in this case partially stems from the operator’s assumption that the members from the host community have the ability to create or offer such services. As the *default participation model* encourages the individual entrepreneurship of community members, it allows the community to organise accordingly and within their own existing structures and power rolls.

Though this simplistic model has proven successful, there are limitations to this model. Most noticeably, the model is limited by the host community’s ability to fulfil tourist expectations. The lack of tourism awareness in remote fishing communities revealed by this research suggests that this model may not apply to all tourist audiences. However, it is anticipated as transferable to many forms of adventure tourism, including surf-riding tourism, in which the tourists are willing to sacrifice comforts for an “experience” or waves (Buckley, 2002).

In addition to the potential skill limitations of the community, there are additional risks associated with this model. In the case described, the operator has displayed what can be considered altruism towards the community through the provision of livelihood opportunities for a coastal community. Altruism is not an inherent quality. Therefore, the transferability of this model may leave communities vulnerable to exploitation. However, there is a simple solution to this risk. Vulnerabilities may be reduced by requiring an element of social entrepreneurship, rather than relying upon an altruistic operator. Shaw and Carter (2007) suggest, “the term ‘social entrepreneurship’ has emerged as a new label for describing the work of community, voluntary and public organisations, as well as private firms working for

social rather than for-profit objectives” (p. 419). In essence, social entrepreneurship seeks to prioritise social benefits over personal profits.

A third risk associated with the growth of surf-riding tourism is the potential marginalisation of the community. Buckley (2002) noted that growth of surf-riding tourism in developing nations was often spurred by investment from the foreign sector. He found these types of surf-riding tourism developments sometimes created tensions in the community where locals are required as staff, but cannot afford to stay at the resort. It was determined that the provision of immediate access to the tourism sector afforded by the *default participation tourism development model*, in the form of potential business owners and the unique participation associated with surf-riding tourism (e.g., in-water surf-riding instructors), was key in mitigating this risk. While the eco-hostels directly employ a few members of the surrounding communities, the majority of the economic benefits are gained from tourists spending outside of the hostel for meals and services.

In both applications, the model has proved seemingly successful. These positive outcomes may be unique to the type of tourism, in this case surf-riding tourism. For both casual and recreational surf-riders, surfing is a social experience (Buckley, 2002; Orams & Towner, 2013). Additionally, surfing has its own set of social norms for behaviour and conduct in the water (Orams & Towner, 2013). These “understood” rules associated with surfing likely contribute to appropriate behaviour, both in and out of the water. Unique to surfing, the locals often have the waves “mastered” and use this local knowledge to “cherry pick” or choose the best waves. Therefore, “getting in good” with the locals may enhance the experience of surf-rider tourist through improved access to waves. In both locations, the local surf-riders and other members from the communities have taken an active interest in improving the beach aesthetics (Buckley, 2012) through participation in beach clean-ups organised by the operator and in general beach upkeep. Overall, the levels of community engagement will likely influence project outcomes based on this model.

In terms of benefits to the resource, the two development projects described by the *default participation tourism development model* are believed to have lessened the direct dependency on the fisheries for some. However, this does not guarantee that actual overall efforts on the fisheries have been or will be reduced (see Sievanen et al., 2005). In addition, the increased numbers of visitors increases the environmental pressures on those areas (Buckley, 2002; 2012). Aside from the environmental and social risks, the small scale of the *default participation tourism development model* is expected to provide benefits that outweigh the risks (Buckley, 2012). The size and design of the eco-hostels required a minimal investment from the operator in comparison to larger resort-type tourism establishments. While even these lesser amounts required to start up these businesses are not attainable in the form of savings or loans to members of remote fishing communities, the benefits afforded through livelihood diversification opportunities are considered substantial and warrant the presence and involvement of an “outsider.” The involvement of the outsider further works to ameliorate shortages of business skills and knowledge gaps of the tourism sector that this research has shown is predominant in remote fishing communities.

When compared to current applications of and suggestions for tourism as a livelihood diversification strategy, the *default participation tourism development model* has three unique characteristics. First and most obvious, it placed almost immediate responsibility on the community to fill the voids created for tourism-associated services. Further, it does so without the involvement of the community in the planning process. The success of this model provides evidence against the work of Cattarinich (2001) who found community participation in planning to be positively correlated with the success of pro-poor tourism initiatives. However, as Eder (2005) found, community meetings in the Philippines involving coastal management projects are only weakly participatory and that “some local voices and perspectives were simply never heard at all” (p. 164). Therefore, while the default participation model’s failure to address community concerns could be construed as a weakness, in terms of potential benefits to both the community and resource it was instead interpreted as a strength. This interpretation is subject to bias due to the vested interest of the key informant. The descriptions of community perceptions of the project and project benefits are based on the key informant/operator’s

opinions and perceptions. Ideally, this interpretation would be supported through a separate measure of community perceptions and opinions regarding the two surf hostels based on the *default participation tourism development model*.

The second unique characteristic of this model was that it required surf. The ingenuity of the model targets an adventurous “no-frills” tourist audience, thus, reducing the required amount of luxuries. Though a dependence on consistent surfable waves seemingly limits the transferability of the model, the reliance upon surf-riding activities suggests a largely overlooked strategy for small-scale tourism development in coastal communities. The application of this model has created opportunities for local surf-riders to become surf-instructors. In many places with a rideable surf break, it is common to find locals who are what Orams and Towner (2013) described as “recreational surf-riders,” if not “hard core surf-riders.” Additionally, it is anticipated that a unique marine attraction (e.g., dive tourism) with a similarly characterised tourist audience could also support this model.

Third, it was based on a personal investment in the form of private equity. Thus, economic success or failure was directly linked to one or a few persons rather than large groups of persons or administrations, as is the case with many development projects. This transfer of the “bottom-line” to one or a few persons’ pockets was considered a substantial driving force in achieving positive project outcomes and success.

#### *5.6.3 Model 2: Compulsory visitor philanthropy*

Model 2 relies upon a donation for tourism services as well as requires visitors to partake in other philanthropic activities. It is therefore described as the *compulsory visitor philanthropy tourism development model*. The motivation behind the founder/operator’s involvement in the project can be considered four-fold: surfing, modelling environmental sustainability, creating livelihood opportunities, and enhancing marine conservation.

The first stimulus, surfing, is possibly the most influential motivator of this model. While there often remains a counter-culture associated with surfing, at least part of the “surfer dude”

mentality has been dispelled by literature showing that many surf-riding tourists have substantial purchasing power (Buckley, 2002). In this case, the operator/founder has discovered previously un-surfed surf breaks. For a surf-rider, discovering and surfing an un-surfed break is one of the greatest accomplishments (Brown, 1966). The willingness to pay for “unspoiled” waves is supported in the literature by Buckley (2002) who notes that surf-riding tourists will pay a premium for uncrowded surf. The fascination associated with the discovery of a new wave is hardly a recent phenomenon. Feature films began portraying this type of adventure as early as the 1960s with the film, “The Endless Summer” documenting a circumnavigation of the globe in search of new surf breaks (Brown, 1966). The hunt for new surf breaks continued both in and out of the cinemas. “The Endless Summer 2,” a sequel to the trailblazing film, “The Endless Summer,” released in 1994, not only continued to spark the interest of new wave discovery, but it also revisited some of the previously undiscovered surf breaks revealed in the first film (Brown, 1966, 1994). The sequel, in revisiting surf breaks discovered in the first film, revealed threats and problems characteristic to coastal development (Buckley, 2012; Ong et al., 2011). The “Endless Summer 2” found development and beach erosion had spoiled conditions at a previously excellent surf break (Brown, 1994).

As demonstrated in “The Endless Summer 2,” the quality of surf breaks is not only subject to natural factors (e.g., wind, swell), but it may also be influenced by external anthropogenic factors (e.g., beach erosion, coastal development, dredging) (Brown, 1994). For example, reef breaks are dependent on the stable condition of the reef; therefore, changes to the reef such as those caused by blast fishing, may negatively alter or destroy a surf break. Surfing is, therefore, inextricably linked to marine conservation. Thus, protecting the surf means protecting the marine environment, and ensuring those dependent on the marine environment have sufficient livelihood opportunities. Understanding the urgent need for effective marine programmes in the Philippines (Baticados, 2004; Dalabajan, 2009) and wanting to preserve not only surf breaks, but also the general marine environment, the operator/founder used private equity, to found an NGO that offers access to microfinance programmes for local residents. The key components of this model are summarised in Figure 5.9.



Figure 5.9: The relationship between the visitor and community in the *compulsory visitor philanthropy tourism development model*. In this model the visitor provides philanthropic actions in the forms of monetary donations or service donations. In return the community provides experiences for the visitor vis-à-vis an invitation or through the provision of tourism activities and services. The dashed lines represent potential points of severance of the relationship. The spiral continues throughout the duration of the visit.

The required donation to stay represents the first philanthropic action/input depicted in Figure 5.9. This second philanthropic input through visitor participation in environmental projects may be considered a form of volunteer tourism, according to the definition of Wearing (2001). Wearing defines volunteer tourists as, “those who, for various reasons volunteer in an organised way to undertake holidays that might involve aiding or alleviating the material poverty of some groups in society, the restoration of certain environments or research into aspects of society or environment” (p. 1). However, unlike volunteer tourism, the participation in conservation efforts is not intended to be the main attraction for the majority of visitors (Wearing, 2001). Instead, the strategy employed by this model is remarkably similar to Forestell’s (1993) call for the “modelling of desired behaviours, active recruitment of participants to commit to change, and the presentation of action alternatives, as essential components of nature-based [tourism] programmes” (Forestell, 1993, p. 277). The theory behind Forestell’s (1993) concept was that through participation in environmentally preferable



behaviours and through the observation of environmentally preferable actions and options (e.g., eco-features of the tourism establishment such as use of native locally-sourced materials, composting toilets, water reclamation, LED lighting and solar power), the visitors will gain an environmentally sensitive philosophy. This is summarised by the second “experience” depicted in Figure 5.9.

While the *compulsory visitor philanthropy tourism development model* is still in its infancy, the environmentally oriented and community empowerment foundations on which the model exists suggest that the model has substantial potential. It is understood that by design and through the use of private equity in such an application (e.g., a microfinanced development project aimed at achieving positive social and environmental outcomes) clearly fulfils the objectives of social entrepreneurship (Shaw & Carter, 2007). The benefits to the community began with the purchase of the land. Since the land purchase, the recipients of the microfinance loan have employed numerous members of the community and the continued involvement of the “outsider” has provided new knowledge and skills to an otherwise minimally exposed audience. Additionally, due to the high financial stakes associated with the use of private equity, the operator/founder has provided continuous training for management, business, tourism and surf skills to the beneficiaries of and other locals involved in the project.

#### 5.6.4 Synopsis

There were two key similarities between the *default participation tourism development model* and the *compulsory visitor philanthropy tourism development model*. First and foremost, the associated operators/founders behind each model are considered altruistic based on their inclusion of social entrepreneurship. This altruistic identification of the operators was based on the prioritisation of livelihood opportunities over personal financial gain as well as the intention to conserve or improve the marine resources. The second similarity was that both projects relied on personal financial investment. This second component is possibly one of the most influential factors in the project designs. This interpretation was based on the principal-agent theory which Easterly (2006) simplified using a scenario of a flatulence in an elevator (p. 172).

As Easterly explained, if there is only one other person in an elevator, the person with flatulence will likely suppress his/her flatulence; however, if there is a crowd in an elevator, the incentive to suppress flatulence decreases, as placing blame on the actual guilty party will become difficult. Thus, the principle-agent theory as applied to development strategy suggests that, “multiple principals (many rich-country governments and issue lobbies) weaken the incentives for the agent (the international agency)” (Easter, 2006, p. 171).

The effects of multiple principals were observed in the data from the key informants representing the fisheries sector. These informants who, based on their fields of work (fisheries conservation and livelihood diversification), were considered to be similarly altruistic to the contributing informants from the tourism sector. Thus, the main difference between operator/founders from the tourism sector and those from the fisheries sector was the presence or lack of personal financial investment. In the case of those representatives from the fisheries sector, the failure of a project or programme may only equate to feelings of disappointment, yet does not affect employment or cause financial loss. Relevant to the majority of current development strategy that relies upon public equity and emphasises community inclusion, based on findings from this research, it is suggested that private personal equity should be considered a substantial motivator in development strategy.

Additionally, the resource requires protection. A key element to sustainable tourism development is the scale (Buckley, 2012; Orams, 2002). As Orams (2002) wrote, “ecotourism operations or destinations that grow too popular move down a path of development away from sustainability toward a situation where they can become unsustainable and indistinguishable from mass tourism” (p. 349). To address the issue of scale, among others, the findings from this research were combined to suggest a comprehensive model for small-scale tourism development as a viable strategy for remote fisherfolk in the Philippines. The data from the fisherfolk interviews revealed a rudimentary understanding (at best) of tourism activities. The lack of tourism awareness described in the data contradicts previous arguments for community inclusion in the planning processes (see Beeton, 2006; Johnston, 2006; Mensah & Amuquandoh, 2010). The findings from this study showed that it is unlikely that such audiences

would be able to understand their potential roles in tourism development, therefore, making such inclusion in planning processes ineffective. Thus, the fisherfolk data demonstrated a need for an ethically responsible approach to tourism development that did not hinge on community participation.

This suggested model was based on three main elements: private equity, social entrepreneurship and environmental conservation. The joining of these three objectives provided an answer to the emergent fifth research question regarding increasing access to the tourism sector for fisherfolk. Thus, a third model, the *contributory tourism development model* is suggested to improve the access to the tourism sector for fisherfolk as a remote audience with minimal tourism awareness (see Figure 5.10).

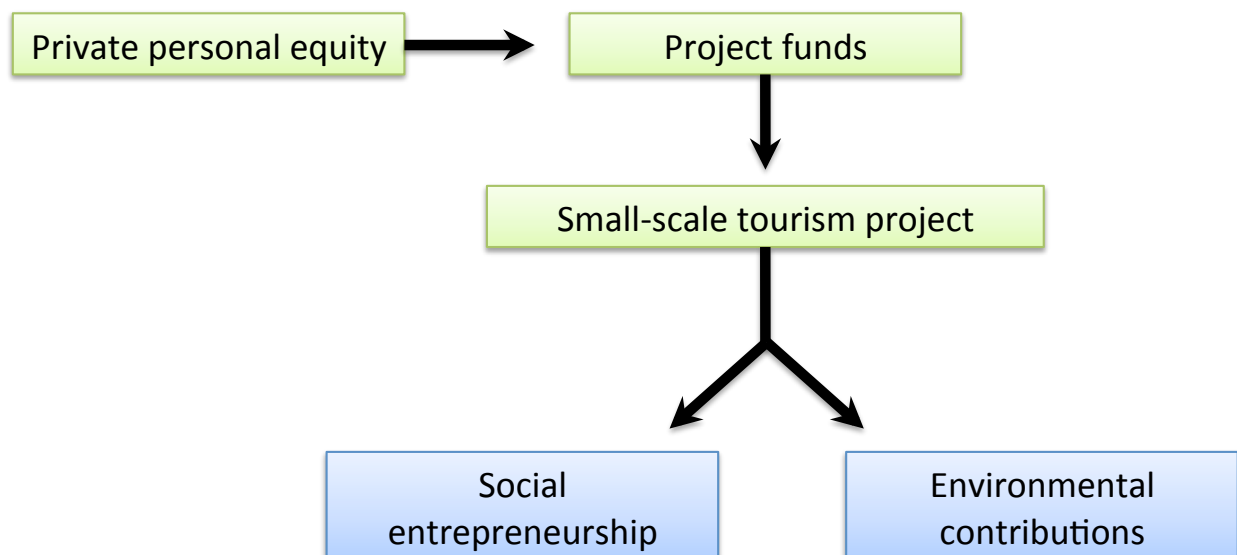


Figure 5.10: *Contributory tourism development model*. The simplistic model depends on private personal equity as an input into project funds.

The outputs of the *contributory tourism development model* include a small-scale tourism development with components of social entrepreneurship and environmental contributions. The success of the model requires that both social and environmental components be based upon realistic measurable objectives.

The use of private personal equity works to enhance project outcomes by directly linking the person or persons responsible for the funding stream to the project. Private personal equity as an input is not considered limiting as it is expected that additional funds may be outsourced from larger agencies as necessary depending on project costs. This, combined with the application of social entrepreneurship objectives promotes the creation of livelihood opportunities for the host community. The fulfilment of social entrepreneurship objectives seeks to replace the need for community inclusion in the planning processes. The third element, environmental contributions or resource protection may be more difficult to guarantee. While the use of private equity works to ensure the economic success of a socially beneficial project, it does little to protect the environment. In the specific case of surfing, attaining environmental conservation goals may be simplified since the activity itself often depends on a healthy marine environment. Further, surf-riding tourism (as are most forms of marine tourism) is benefited by an aesthetically pleasing environment. The combination of these three elements works to provide both a reduction in principal agents (Easterly, 2006) and thus, a reduction in objectives associated with development projects. Additionally, it seeks to offer a unique and altruistic approach based on attainable objectives that are limited by scale. To best achieve these potential outputs, it is suggested that the application of this model begin with a baseline survey based on measurable objectives. Further, it is suggested that the success of a particular project be based on measurable objectives that are evaluated annually. Such measurable objectives would need to be both project and site-specific; however, a modification of the four main components of the interview instrument used for the fisherfolk surveys (fishing lifestyle, perceived state of the marine resource and marine resource management, tourism awareness, and perceived costs and benefits of tourism development) is suggested.

The success of the *contributory tourism development model* ultimately depends on the positive participation of the community. By design, the *contributory tourism development model* prioritises the community; however, it does not necessarily require the involvement of the community in the planning stages. As suggested by the title, it is based on appropriate “contributions” to the future of the community and the resource(s). While these contributions may come in various forms, the goal remains the same to protect the community through

resource conservation. Within a fishing community, conservation of the resource is dependent upon “contributions” on behalf of the community to the resource. Such contributions may come in the form of direct conservation inputs (e.g., MPAs, enforcement) or through non-extractive uses of the resource (e.g., tourism). For a fishing community who depends on the resource for subsistence and livelihood, this becomes a delicate relationship between the community and the resource that is easily influenced by external factors (e.g., weather, commercial fisheries). To remain sustainable, the contributions must exceed the extractive use of the resource. Figure 5.11 offers a simple depiction of this fluid relationship.

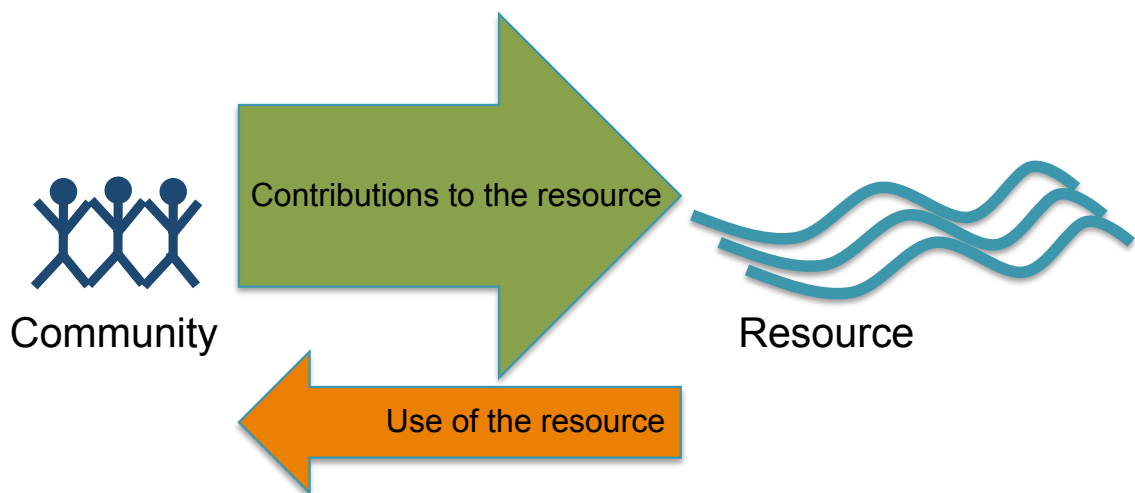


Figure 5.11: A slimy affair. The inputs and interactions between the fisherfolk and the fisheries required to maintain a sustainable relationship.

Figure 5.11 models a fluid relationship between the community and the resource. Contributions to the resource may include actions such as the establishment of MPAs, as well as environmental rehabilitation efforts. Alternatively, use of the resource refers specifically to extractive exploitation of the resource. The sustainability of the relationship depends upon the use being less than the contributions.

The *contributory tourism development model* was based on providing workable solutions for development initiatives by reducing project objectives (Easterly, 2006, p. 171). Further, it is expected that by replacing the often large number of “outsiders” as staff working on a given

development project, with one or a few vested individuals, operational efficiency would be increased. This assumption was supported through personal experience working on internationally funded fisheries development projects, through multiple key informant responses and through personal observations and conversations that took place during the course of the research in the Philippines.

An additional benefit of the *contributory tourism development model* is that it is expected to significantly reduce project costs. Many development projects funded by international aid target relatively few beneficiaries (e.g., a single or few communities or *barangays*). It is common for these project budgets to exceed millions of US dollars (e.g., RFLP livelihood improvement projects). Instead, the *contributory tourism development model*, which relies upon small-scale projects that target a single community as beneficiaries, suggests a significant reduction in project budgets. Therefore, a reduction in livelihood diversification development project budgets to less than 100,000 US dollars seeks to discredit the exorbitant development project budgets that have become accepted as normal. Thus, the *contributory tourism development model* attempts to appropriate the current development strategy that is the focus of the international aid sector and large NGOs by suggesting livelihood diversification targeted at fisherfolk be accomplished through the private sector. Such a shift would theoretically release significant amounts of monetary resources that could be applied to direct conservation efforts such as the purchase or acquisition of water and land use rights to create no-take MPAs (e.g., Brunnschweiler, 2010) and the provision of the necessary tools and training for effective enforcement. Alternatively, these funds could be used for micro-loans for interested individuals or organisations with focused objectives. As Easterly (2006) stated, “the solution to this particular problem [ineffective development programmes] is to have fewer objectives if the aid business were not so beguiled by utopian visions, it could address a more realistic set of problems for which it had evidence of a workable solution” (p. 171).

### **5.7 Summary: Surfing towards success?**

Mensah and Amuquandoh (2010) argue, “the diverse nature of the tourism industry makes it a more desirable strategy for addressing poverty than other sectors” (p. 94). The diversity alone, however, does not guarantee its success. Hoping that an audience with little understanding or awareness of tourism will be able to provide tourism activities, and in turn, receive economic benefits can and should be considered a gamble. The findings from the comparative cases of this research revealed that the majority of the fisherfolk surveyed do not have a sufficient understanding or awareness of the tourism sector, especially its associated risks. However, despite this apparent knowledge gap, the data depicted an audience willing to be developed for potential social benefits that can be summarised desiring “a change of pace.” Shifting the focus of current development strategy from monetary and/or environmental benefits to social benefits would delay the sometimes-urgent goals of livelihood improvement and lessening the dependence on the resource. However, acknowledging this social desire of the fishing communities may serve to improve the long-term outcomes of development programmes. A deductive approach to determining the viability of tourism as a livelihood diversification strategy has been summarised in Figure 5.12.

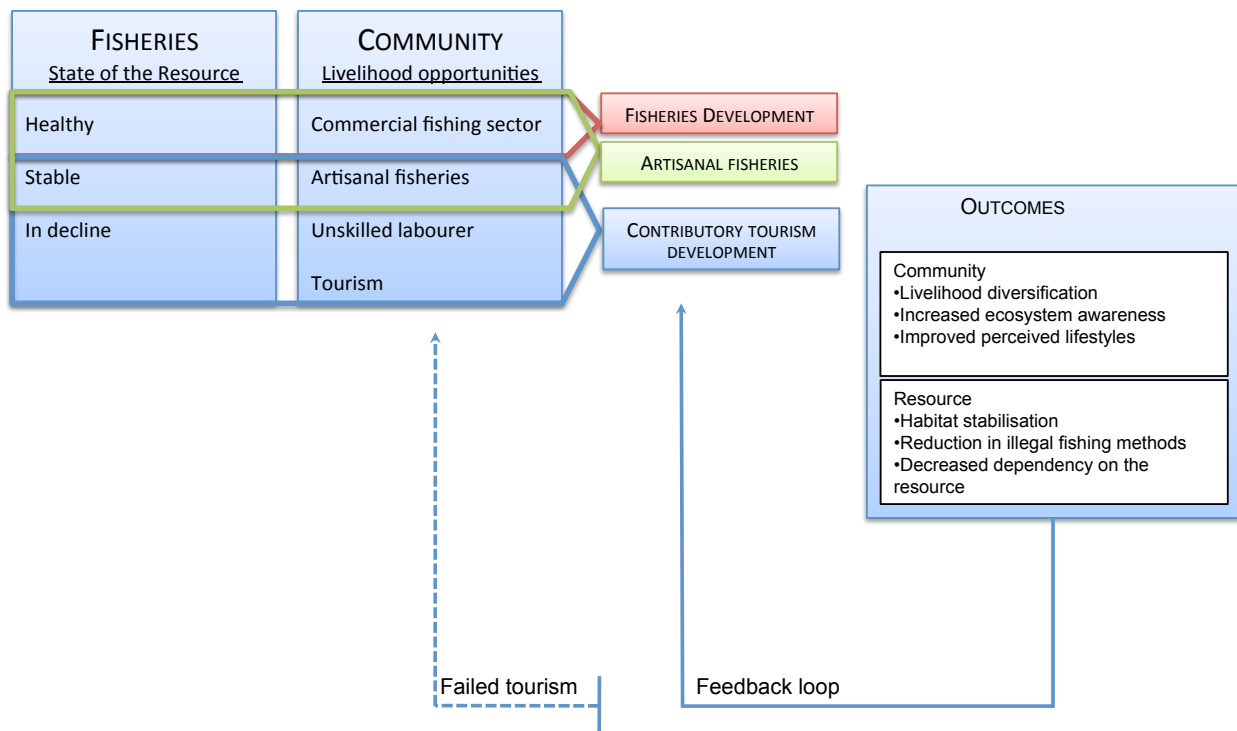


Figure 5.12: The viability for tourism as a livelihood diversification strategy for remote artisanal fisherfolk. The *contributory tourism development model* has been applied in the context of development to offer a potential reduction in necessary factors as well as project objectives.

As depicted in Figure 5.12, the application of the *contributory tourism development model* ultimately depends on the involvement of one or a few “outsiders” willing to invest in a tourism development project. While sometimes rare, these altruistic individuals do exist (Cater & Cater, 2007). The application of the *contributory tourism development model* reduces the importance of factors such as worldview or tourism awareness that were identified by the data as contributing factors to the viability of tourism as a livelihood diversification strategy for remote artisanal fisherfolk.

The *contributory tourism development model* was founded on models of small-scale surf-riding tourism projects involving coastal fishing communities. Thus, the question arises, what does this mean for the fisherfolk communities without access to surfable waves? In the case of Victory, rideable surf may not be far away. During the interview sessions, potentially surfable waves were breaking on the outer reef; the influence on weather was also explained by



multiple fisherfolk (see Table 4.3) who noted sea state as affecting their ability to fish. Even if the surf was only a coincidence, the recent spike in popularity of riding stand-up paddleboards (SUPs) opens the doors to an alternative form of surf-riding tourism that includes surf-riding activities and tourism (Orams & Towner, 2013) and does not necessarily require waves. Coincidentally, the techniques used for “riding” *balsa* vessels (see Figure 3.9) that are used by many fisherfolk from Victory, are remarkably similar to SUPs. Thus, the variety of activities within surf-riding itself (Orams & Towner, 2013), provide opportunities appropriate for most, if not all shorelines. This suggestion should not limit the exploration of other forms of ecotourism, nature-based tourism or even volunteer tourism that fit within the *contributory tourism development model* as being potentially viable options. Instead, it merely suggests a lesser-explored option in the context of development work.

## Chapter 6: Conclusions

“Many things have changed since the 1950s—we now have air-conditioning, the Internet, new life-saving drugs, and sex in movies. Yet one thing is unchanged: the legend that inspires foreign aid today.” – William Easterly (2006, p. 37)

### 6.1 Introduction

This research focused on a specific group of people, remote artisanal fisherfolk, whose perceptions are seldom considered prior to the commencement of livelihood diversification programmes or the implementation of development strategies. While some attention in the literature has been devoted to willingness to exit a fishery, the theoretical incentives often used in such research do little to address the reasons current development strategy is failing and these experimental models seldom offer solutions needed for development studies. Likewise, the vast majority of research that has explored the outcomes of livelihood diversification through tourism has done so as a follow up to development rather than a precursor. Though there is extensive literature on community-based tourism and pro-poor tourism, few of the suggested models have been appropriately tested; thus, a widely accepted model has yet to be defined in the literature.

This study applied a phenomenological approach using a comparative case study between three remote artisanal fishing communities in the Filipino province of Luzon. This research approach, while not unique, was innovative in terms of its application within the social and ecological contexts of artisanal fisheries. The research afforded fisherfolk, an often disadvantaged demographic, an opportunity to contribute perception based data concerning their current livelihoods, the state of the marine resources, tourism as an income-generating activity, and their willingness to engage in tourism as a potential livelihood diversification strategy. From a social science perspective, it seems livelihood diversification is not immediately required by the fisherfolk. However, it is likely that potential social benefits such as a “change of pace and a new face” resultant from livelihood diversification through tourism development would be welcomed by fisherfolk (Porter & Orams, 2014). From the natural science perspective, the

dependence on a declining resource requires almost immediate livelihood diversification. Tourism, while not considered a simple “win-win” solution, may provide benefits that fulfil the needs of both social and natural scientists.

The findings from this research revealed a multitude of challenges associated with tourism as a livelihood diversification strategy for remote artisanal fisherfolk within the current development strategy context. However, findings from the key informant interviews supported two previously undescribed diversification models that may offer success. This chapter provides a context in which to place the findings. It takes the findings that were seemingly straightforward, logical, and that could hypothetically be considered common sense, to not only provide a voice for a vulnerable demographic on their desire and willingness to “be developed,” but also to provide insight as to why development strategy remains ineffective. To accomplish this, the chapter has been divided into four main sections. The first section revisits the main research objectives by presenting a summary of the associated key findings. The second section outlines the limitations of this research due to biases and other methods-associated constraints. The third section summarises the contributions of this research. Finally, the fourth section explores the contributions and findings from this research, considers their transferability to other locations and sectors, and how they might apply to future strategy and research. Concluding remarks about the culmination of the research process are offered in a final summary.

#### *6.1.1 Revisiting the research objectives*

This research explored the viability of tourism as a livelihood diversification strategy for remote artisanal fisherfolk. In doing so, it considered fishing lifestyle, the marine resources, awareness of tourism and the perceived costs and benefits of livelihood diversification as interdependent factors and potential predictors of success for livelihood diversification strategy. The inter-objective comparisons revealed through triangulation of the research objectives produced a more accurate reality of the participants.

These perception-based comparisons of elements provided insights into the lifestyles of remote artisanal fisherfolk. These insights revealed by the research improve the understanding of fisherfolk lifestyles and their perceived needs and desires for livelihood diversification. Further, the results provided an authentic exploration of the applicability and viability of tourism as a livelihood diversification strategy.

To summarise the fulfilment of the research objectives, each research question is re-presented alongside a summary of the relevant key findings. Additionally, the fifth research question that emerged as a result of the research is summarised.

*Research question 1: How do members of fishing households identify with fishing as a livelihood?*

- Reduced access to essential services (e.g., healthcare, education) affects the lifestyles of fisherfolk. In particular, the lack of post-natal care was shown to affect both poverty and pressure on the fisheries.
- While living in government-defined poverty, perceptions indicate that the majority of fisherfolk are content with their lifestyle.
- Occupational satisfaction is high.
- The effects of increasing disposable incomes will likely not be used as commonly predicted by development initiatives (e.g., for improving household status).
- The participant-described culture associated with the fishing lifestyle will affect livelihood diversification attempts.

*Research question 2: How do members of remote artisanal fishing communities perceive the current state of the marine environment and the marine management strategy?*

- Overall fisherfolk reported a perceived decline in catch; there were minimal changes in fishing practices and many perceive the current catch as sufficient.
- Fisherfolk were unable to identify any negative effects from their personal participation in the fishery.

- 'Personal prerogative' (a previously undescribed driver), along-side 'desperation' and 'requires less effort', emerged as drivers in the use of illegal fishing methods.
- Many fisherfolk felt that the LGUs and *barangay* were ineffective in managing the marine environment and fisheries; however, some participants were unfamiliar or unable to identify established marine management projects within their community.
- Outside of illegal fishing, fisherfolk struggled to identify other issues affecting the marine environment.
- Fatalism may be commonly used by fisherfolk to justify any changes to the fishery.

*Research question 3: What is the level of understanding of tourism and tourism activities within remote artisanal fishing communities?*

- Awareness of tourism was low.
- Fisherfolk identified positive social benefits associated with visitors, mainly a change of pace or seeing a new face.
- The ability of fisherfolk to identify existing tourism assets and potential assets depended on exposure to tourism. Participants with more exposure to tourism and tourism activities were able to identify both potential social and environmental tourism assets, whereas, those with less exposure were only able to identify potential environmental tourism assets, if any.

*Research question 4: What are the perceived costs and benefits (social, environmental and economic) of engaging in tourism as a livelihood diversification?*

- Participants felt that tourism development would not negatively affect the local marine environment; however, some described the potential for reduced access to the fisheries vis-à-vis tourism operators.
- Potential risks to the community were only identified in one research site by two elderly secondary participants.
- Overall, the perceived potential effects of tourism development on the economy were minimal.

- The stated willingness of participants to diversify livelihoods through engagement in tourism activities was high; however, this willingness was not based on any understanding of tourism as a concept, activity and potential livelihood.

*Emergent question 5: How can tourism as a livelihood diversification strategy be developed appropriately given the constraints of remote artisanal fisheries based communities with little understanding about tourism?*

- Two models appropriate for small-scale tourism development within fisherfolk communities were identified:
  - *Default participation model*
  - *Compulsory visitor philanthropy model*
- Similarities between these two models were used to suggest a new livelihood diversification model for fisherfolk communities: The *contributory tourism development model*
- The *contributory tourism development model* suggests:
  - A close linkage between personal private equity and a small-scale tourism development project as a means to reduce the number of agents involved in a project.
  - That tourism development projects adhere to the proposed “best practices.”
  - A reduction in principal (see principal agent theory) and project objectives to improve project efficiency and promote successful outcomes.
  - A reduction in cost and scale of projects to improve strategy efficacy.
  - The exploration of surf-riding tourism as a potential tourism sector aimed at reducing the dependency on the fisheries for coastal communities in developing nations.

#### *6.1.2 Limitations of the results*

Many of the limitations, including the temporal and spatial biases, of this research were addressed in the methods chapter. Overall, the research design used in this project was

deemed to have been appropriate. The research design allowed for a multitude of intra-data comparisons and was therefore trustworthy and allowed for clear interpretations. However, as with any piece of research, there were limitations associated with this body of work. Many of these limitations were considered and described as they arose. Therefore, this section provides only a brief review of and reference to biases and limitations already discussed. Additionally, it reflects on broader limitations that may have affected or influenced the entire study.

In the case of this study, one of the biggest limitations was the language barrier. Not only did the inability to speak the local languages and dialects require the use of a translator, it also culturally distanced the researcher from the participants. As Cronjé (2009) described:

The more global something becomes, the harder it may be for the locals to see its relevance. The more local things become the less globally competitive or useful they might be. Any emphasis on increasing either local relevance or global competitiveness could increase the divide. (p. 70)

A second limitation of the research was potential gender bias towards the researcher. As a female researcher investigating a predominately male occupation (with the exception of the shore-based fisheries), there were incidences of male participants displaying masculinity towards the researcher. Acheson (1981) identified multiple references in the literature describing the occurrence of super masculinity among male fisherfolk. He explained that the display of machismo may “provide men with the ‘illusion’ of being in control over their families,” and that it “helps to ward off the danger of homosexual activity” (Acheson, 1981, p. 297). Though these “displays of masculinity” were limited to a single research site, it is likely there would be observable, albeit slight differences in the data set had the researcher been male. Additionally, some of findings were inconsistent with similar work in nearby areas. Most relevant, Fabinyi (2012) found many fisherfolk opposed tourism development, whereas this research found little resistance to the idea of tourism development among similar audiences. Therefore, it is possible that gender may have affected participant responses; however, it could have also been a case of a difference in research approaches. It was determined that the

female gender of the researcher added valuable data to some parts of the research. The researcher as a female, and more specifically as a mother (at two of the research sites), was able to discuss sensitive issues with participants such as post-natal care. From this an important finding regarding breastfeeding emerged. Therefore, while researcher's gender was seen as a partially limiting factor of the research, it was also viewed as a contributing factor.

Within qualitative case study research, the researcher is commonly accused of being "too close" to the research (Flyvbjerg, 2006). This research was guided by principles of Lewin's (1946) participatory action research and in particular the call for a response to a problem. The "problem" in this context was a community dependent on a resource in decline. This research was thus, driven by and depended on an emotional relationship between the researcher and the research. The potential associated biases of this have been addressed in the Research Design and Methods chapter. The argument of researcher bias could be seen as further compounded by the case study method. Flyvbjerg (2006) sought to disprove the argument that the case study contains bias towards verification. He found that:

The case study contains no greater bias toward verification of the researcher's preconceived notions than other methods of inquiry. On the contrary, experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification. (p. 21)

The results from this research proved Flyvbjerg's (2006) point of falsification. Following the conclusion of the fisherfolk interviews and prior to undertaking the key informant interviews, I had recorded personal concerns about the impossibility of considering tourism as a viable livelihood diversification strategy for remote artisanal fisherfolk within my research journal. It was not until repeated, careful examination of the key informant data, that a way forward utilising tourism as a livelihood diversification strategy was considered and suggested.

Potential flaws in the design of the interview questions have been previously discussed. For example, the questions in the interview that concerned environmental issues and impacts were potentially limiting to the participants. To reduce potential researcher bias, the questions were



intended to be open-ended creating data that was inductive. However, in the context of remote fisherfolk who were somewhat unfamiliar with the research process, research terminology and possibly wariness of outsiders, it is likely that greater depth in the data could have been achieved by addressing specific components of the environment. For example, specifically addressing topics such as non-point source pollution, marine debris, or sedimentation may have revealed a greater-than-depicted level of concern with changes to the marine environment.

A final limitation of this study not yet discussed is its transferability. This research sought to describe the viability of tourism development as a livelihood diversification strategy for remote artisanal fisherfolk in developing nations. However, due to feasibility (e.g., research budget and timeframe), the study was limited to one region of one country. Though there were many similarities between the participants from the three research sites, there were also notable differences. The indigenous Tagbanua culture of the participant group from Decabobo seemingly had the most influence. While some issues from the literature associated with cultural marginalisation were used to support the findings from this research, defining the participant realities in regards to cultural marginalisation were outside the scope of this research.

Based on characteristics and similarities of remote artisanal fisherfolk in developing nations, it is believed that the realities of fisherfolk documented were similar to those of other artisanal fisherfolk in other regions of the Philippines, Southeast Asia and other developing nations. However, as described by Fabinyi et al. (2010) understanding the “motivations, goals, and aspirations of local people” remains critical to achieving coastal resource management (CRM) goals (p. 620). Therefore, while the potential for transferability of fisherfolk realities may be limited, the methods used to document fisherfolk perceptions and interpretations of reality are deemed applicable to similar communities elsewhere. Considering the factors affecting tourism awareness documented by this study, similar levels of understanding would be expected in other remote artisanal fishing communities.

### *6.1.3 Implications of this inquiry*

Livelihood diversification remains an important component of development strategy. Likewise, reducing pressure on the marine resources has become a global concern. Within the development discourse, there have been countless research efforts dedicated towards finding solutions towards ending poverty through livelihood diversification, as well as strategies to reduce pressure on the fisheries. However, solutions to these issues have yet to emerge. The push for alternative or supplemental livelihoods for fisherfolk has been driven by the theory that an increase in alternative income-generating activities will result in a reduction in fishing effort. Conversely, previous studies have shown that despite an increase in time devoted to alternative livelihoods, fishing remained an important activity (Sievanen et al., 2005; Turner et al., 2007). In fact, there have been cases where increased earnings from livelihood diversification projects have been used to purchase more efficient fishing vessels and gears, thus, contributing to an increased pressure on the fisheries (Sievanen et al., 2005). Though these past findings reveal a seemingly significant flaw of development theory, there remains potential for livelihood diversifications efforts.

Based on the current trajectory of the nearshore fisheries (Hilborn et al., 2003; Stobutzki et al., 2006; UNFAO, 2010; Watson et al., 2002), livelihood diversification will become a necessity rather than an idealistic suggestion within the near future. The predicted decline and potential collapse of the near-shore fisheries is expected to create a crisis for those dependent on those fisheries (Bachetta et al., 2009; Chowdhury, 2009), as well as have global repercussions. It is likely that the inability to haul a sufficient catch will cause a reduction in fishing efforts as desperate fisherfolk scramble to find other livelihood opportunities. To mitigate this likely scenario, a drastic change to current development strategy is required. To expect a drastic change in fisherfolk actions such as fishing that are not only pastimes, but also a means of provision, the current approaches must be modified. Thus, the findings from this research have implications relevant to many sectors. This research sought to collect information from key informants from sectors and stakeholders relative to this area of research. Therefore, the

implications explored in the following section have been organised, not only by their implications for academia, but also as they apply to these sectors.

#### *6.1.4 Implications for academia*

In terms of the academic body of literature on livelihood development and resource protection for coastal communities, this research made a meaningful contribution through the exploration of the viability of tourism development as a livelihood diversification strategy for fisherfolk. By relying upon perception-based qualitative data, this research defined a process for documenting a detailed description of the realities of fisherfolk. In particular, the multiple applications of triangulation within the data (Denzin, 1970), allowed the researcher to visualise comparisons within the data, to continuously revisit the data and to ground the comparisons in the literature. Similarly, the data analysis used in this study, and more specifically the presentation of the thematic data, provided an important consideration for academia. In cases in which the respondents provided detail in their answers, the raw quotes were presented as part of the thematic analysis. Doing so allowed for continuous exposure to the raw data and afforded multiple opportunities to revisit some of the raw data sets. Through this process it was noticed that excerpts that would have likely been absorbed into broader conclusions, could be extracted, reconsidered and interpreted in more detail. This study has revealed multiple cases of remote artisanal fisherfolk as an anthropophilic group that is desiring a “change of pace and a new face.” This desire for social interaction has been missed by the previous literature which commonly described fisherfolk as an independent demographic (e.g., Muallil et al., 2009; Pollnac et al., 2001; Smith, 1981).

#### *6.1.5 Implications for the tourism industry*

Tourism continues to be one of the fastest growing global industries (UNWTO, n.d.b). The findings from this research have been used to suggest a new model for tourism development as a livelihood diversification strategy for remote artisanal fisherfolk. The model, in its simplicity, is efficient in terms of costs and benefits to the community and the resource. It encourages individual and social entrepreneurship, and thus, seeks to diversify current expectations of the

tourism experience. Through this move towards privatisation of tourism as a livelihood diversification strategy, new opportunities for investment in the tourism sector are created. Those with the ability to become an operator within the *contributory tourism development model* are also considered as a “receptive audience.” Such persons are already thought to have sufficient business skills as well as the ability to become easily educated on issues (specifically environmental and social) pertinent to their projects. This unique characteristic seeks to reduce often lengthy project timelines associated with the training of a less-educated audience (e.g., fisherfolk). Finally, the findings suggested the exploration of the diversity of the surf-riding tourism sector (Orams & Towner, 2013) as a potential and appropriate sector for coastal communities.

#### *6.1.6 Implications for international aid agencies*

The findings from this research sought to provide a partial solution to current development strategy. Thus, the implications of this research for international aid agencies are significant. While the findings were limited to tourism as a livelihood diversification strategy for a specific demographic, the fisherfolk, the literature on pro-poor tourism and tourism as a poverty reduction strategy (Cattarinich, 2001; Croes & Vanegas, 2010; Launio et al., 2010; WTO, 2000) and community-based tourism (Beeton, 2006; Johnston, 2006) continues to reiterate the relevance of tourism as a livelihood diversification strategy for communities in developing nations. Involvement of the private sector in the development strategy of tourism has been previously suggested. For example, UNWTO (2002) noted the essential role of the private sector in tourism “as partner, enabler, customer, marketing channel, financial catalyser and advisor” (p. 14). Likewise, Croes and Vanegas (2008) called for “the need for public and private intervention in the development strategy of tourism expansion” (p. 102).

The proposed *contributory tourism development model* suggests this be achieved through the transfer of livelihood development programmes from the public sector to the private sector. More specifically, this privatisation suggests the use of private personal equity, thus calling for project developers to put their own “skin-in the game.” While this suggestion may seem

impetuous, it is grounded in evidence and experience that would suggest otherwise. First, it addresses the principal-agent theory that Easterly (2006) describes as a major hindrance in current development strategy. By privatising the sector and directly linking personal finances with projects, the proposed shift seeks to hold those involved in the projects accountable. Second, the *contributory tourism development model*, based on its design and emphasis on social entrepreneurship, encourages the involvement of altruistic individuals. This is not to say altruistic individuals do not exist in international aid agencies or that persons from the private sector are not corrupt. Instead, the privatisation of livelihood development is meant to simplify the strategy by reducing the number of persons, agencies and funding streams involved. The third and final implication for international aid agencies is a reduction in project budgets. Current budgets per beneficiary associated with international aid development programmes are often unrealistic (Easterly, 2006) and the results are often inconclusive at best (Hollup, 2002). If international aid agencies were to transfer livelihood diversification projects to the private sector, hundreds of millions of dollars could potentially be freed up annually, allowing more funds to be applied towards environmental protection. In the case of fisheries, this may be achieved through improving enforcement and the establishment of no-take/no-use MPAs. While the *contributory tourism development model* can only suggest a new way forward with the same general goals (e.g., reducing poverty, reducing dependency on the fisheries, conserving or improving the fisheries), there is no shortage of examples of project failures. Unfortunately, this research cannot begin to address the political issues involved in many international aid projects (Easterly, 2006) or the political instabilities characteristic to many developing nations (WTO, 2002). Instead it merely suggests that those from the private sector who are willing to risk their own livelihoods be supported.

#### *6.1.7 Implications for the NGO sector*

The implications to the NGO sector are relatively few. Mainly, the potential use of the *contributory tourism development model* seeks to benefit NGOs involved in social development and resource protection or a combination of the two. The model offers a strategy within the operating budgets of most NGOs and can be potentially modified to suit any budget.

Additionally, the research described an innovative *compulsory visitor philanthropy model* that has potential applications for some NGOs. For NGOs associated with tourism and visitors, the described donation-based system in lieu of an entrance/user-fee could offer NGOs greater control over the actions of their visitors and result in greater control over the protection of the resource.

#### *6.1.8 Implications for the government*

The implications of this research that were specific to the government centred on access. For remote artisanal fisherfolk, access to social and medical services remained limited. In particular, this research revealed the misinformation surrounding infant care. While seemingly insignificant, this issue affects not only the rate of infant mortality, but also the pressure on the fisheries. A second finding to be considered by government is the drivers behind the use of illegal fishing methods. Another significant finding was that fatalism played a role in the perceptions of fisherfolk. While conflicts of interest could limit the ability to address particular topics (e.g., birth control), the church could be used to disseminate important medical information (e.g., infant health care).

Aside from issues of access, this research revealed frustrations associated with the current management, specifically at the local *barangay* level. The responses of some fisherfolk hinted at the weakness of the local management, while others felt that the *barangay* council had not been provided the necessary funds or tools to sufficiently manage the fisheries. It was interpreted that personal prerogative as a driver in illegal fishing may have been related to the perceived inefficiencies at the LGU levels.

The results from this research have emphasised the shortcomings of the current livelihood development strategies. The findings and models drawn from the data aim to provide beneficial suggestions that seek to improve the livelihoods of fisherfolk and ultimately reduce pressure on the fisheries. The suggestion to privatise tourism-related livelihood diversification programmes seeks to release previously allocated government development funds which may then be used for direct conservation efforts and the improvement of marine management, including

enforcement, in the Philippines (see Baticados, 2004; Dalabajan, 2009; Fabinyi, 2007, 2010). It also supports the Government of the Philippines' call for tourism development as a saviour (see Department of Tourism, 2009). However, to effectively encourage small-scale tourism growth from the private sector, the government may need to amend some of the current regulations. Possibly one of the most prohibitive factors for foreigners seeking to fund a project aligned with the *contributory tourism development model* is the inability to own land. While there are ways to circumvent these regulations, they place investors at financial risk. Therefore, to promote investment in small-scale tourism development aimed at providing social and environmental benefits, such regulations may need to be reconsidered. These implications for various stakeholders and sectors, as well as for academia have highlighted areas for further research. The following section summarises emergent areas for further research as well as calls for further longitudinal research into the effects of the *contributory tourism development model* proposed by this study.

#### *6.1.9 Implications for the community*

This research emphasised the importance of reality as perceived by community members. Ethical considerations were an integral part of the research and every attempt was made to ensure the data were interpreted with fairness to the participants. Reciprocity in research between the researcher and the participants is often overlooked (Stewart & Draper, 2009).

Stewart and Draper (2009) state "fairness means that significant benefits from the research should accrue in the host community, not only for the researcher" (p. 141). Due to the characteristics of the communities described by this research (e.g., education levels, lack of access to mail services), the dissemination of findings is considered challenging. A research summary or report would likely be a point of confusion rather than value to many of the participants. The participants from Victory are an exception. Victory community members are more familiar with the research process and are accustomed to feedback from UPMSI through visual presentations. In response a short PowerPoint presentation to be given by a UPMSI staff

at one of the upcoming monthly People's Organisation meetings based on the findings reported in Porter and Orams (2014) has been prepared.

Whereas official dissemination of findings may be an ideal form of reciprocity in many research relationships (Stewart & Draper, 2009), it is thought that the participants benefited from the research in other ways. Tangible benefits included the sharing of refreshments. During each interview session, participants were offered instant coffee sachets, cookies and crackers. Intangible social benefits were also observed. As demonstrated by the data, many participants welcomed the opportunity to see a new face; it seemingly came as a relief to the daily monotony of remote living. This was repetitively demonstrated throughout the research process as the research team was welcomed into participant homes and participants' time was generously shared. Though a subjective measure, the data from this research demonstrated the social interactions associated with research as a benefit to the community.

#### *6.1.10 Looking ahead*

This research was exploratory in its investigation of the viability of tourism as a livelihood diversification strategy for remote fisherfolk; thus, a variety of areas for further study have emerged. First, this research has suggested a range of conceptual models that used data collected from both fisherfolk and key informants. These models were constructed based on the key findings from this research; therefore, only speculations can be made regarding their transferability to other cases. Additionally, the proposed *contributory tourism development model* requires further rigorous application and investigation to prove its validity for the proposed applications and to become accepted as grounded theoretical models in the literature.

The qualitative nature of this inquiry provided a wide range of data that revealed areas previously overlooked in the literature. The anthropophilic nature of fisherfolk as a potential driver for livelihood diversification has yet to be explored. The idea of "a change of pace or seeing a new face" is seemingly of little importance in the context of poverty. However, the link between low income and poverty in the fisheries is based on a Western or "outsider's"



perception. As Béné (2003) explained, “the subsistence dimension of the activity [fishing] is often very high, especially in developing countries” (p. 954). The qualitative approach afforded by the research design revealed a demographic that lacked disposable incomes; however, they had a perceived contentment with their current quality of life. Further, it revealed that the perceived potential social benefits of tourism development outweighed the perceived potential economic benefits. This was a critical finding that deserves closer exploration to determine its significance as a fluke case or as a critical case (Flyvbjerg, 2006).

A third area for future research is the exploration of the role of surf-riding tourism in development strategy. The two cases of the use of surf-riding tourism as a development strategy described in this research suggest that this sector may be underexploited. As Orams and Towner (2013) state, “an additional important issue with regard to the semantics of surfing is that there is now a very diverse range of ways of riding waves and a wide range of craft used to do it” (p. 174). This, coupled with the flexible nature of many surf-riding tourists and the preferred exclusivity of most surf-riding tourists (Buckley, 2002; Orams & Towner, 2013) suggest the sector is conducive for socially and environmentally responsible small-scale tourism development suggested by the *contributory tourism development model*. The development of this model seeks to improve upon what Towner (2014) refers to as an “inadequacy of current tourism-management strategies” (p. 240).

A fourth area that became an important variable in this research was the link to indigenous cultures. While only speculative from the data collected during this study, those fisherfolk associated with indigenous cultures may not desire change through development in the same capacities as those fisherfolk from other cultural backgrounds. Comparative and longitudinal studies to address this variable are suggested as priorities for future research.

A fifth area of importance, the link between access and pressure on the fisheries, also deserves further attention. The results revealed the occurrence of medical misinformation within the fisherfolk group. Specifically, it was found that misinformation regarding the ability to or benefits of breastfeeding infants might increase pressure on the fisheries. While this finding

was unexpected and possibly of limited significance to the main goal of this study, its relevance to the overall state of the fisheries warrants further attention.

Finally, it is important to address the factors that make fishing a satisfying livelihood. This study revealed fishing for many was considered a way of life. It is what they know and how they succeed. These factors that bind members of coastal communities to the fisheries must be considered in the development and livelihood strategies targeted at this demographic. As stated by Pollnac et al. (2001) “if one wishes to provide an alternative occupation that is attractive to fishers, it should, at least, have some of the same characteristics as those considered desirable in fishing” (p. 542).

## **6.2 Final thoughts**

The purpose of this research was to explore the viability of tourism as a livelihood diversification opportunity for members of remote artisanal fishing communities. The underlying driver of this research was to identify a viable livelihood diversification opportunity that has the potential to lessen pressure on the fisheries, or at the very least, reduce the dependency on it. To continue on the same “development” trajectory that has been utilised for decades and expect new results would be irresponsible. In the case of the fisheries and those dependent on the fisheries, this will soon become a fatal approach (Pomeroy et al., 2001).

The current strategy for livelihood diversification within coastal communities asks members to forfeit their self-identified satisfactory lifestyles to meet the development goals and ideas of “outsiders.” While resource conservation is arguably a global priority, as Acheson (1981) asked, “why should fishermen conserve when there is no way the benefits can be reserved for themselves?” (p. 277). It is negligent to rely upon development strategies for fisherfolk that continue to fail to produce beneficial social results, or that continue to industrialise artisanal fisheries already in decline. Instead it becomes necessary to listen to the desires of the fisherfolk (Fabinyi, 2012) to provide effective solutions for suitable livelihood diversification opportunities. This research revealed that fisherfolk desire opportunities to observe and possibly interact with visitors. Tourism by means of introducing visitors to remote areas

provides a way to fulfil this desire. However, tourism as a strategy is not without risks. Thus, the success of increasing the frequency of visitors to a remote area depends on a sensitive and well-managed approach.

The research has provided a tourism development model that seeks to benefit both the “developed” and those “being developed.” Thus, it is suggested that in the case of tourism as a development strategy, the focus be shifted from livelihood diversification to a practice of basic business that is guided by the principles of the *contributory tourism development model*. This shift aims to intrinsically provide realistic opportunities and benefits for the livelihood diversification of fisherfolk, and to improve conservation of the near-shore marine resources on which these communities have depended for so long.

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## Chapter 8: Appendices

## Appendix 1: Ethics approval letter



### MEMORANDUM

Auckland University of Technology Ethics Committee (AUTEC)

To: Mark Orams  
From: Dr Rosemary Godbold Executive Secretary, AUTEC  
Date: 7 October 2011  
Subject: Ethics Application Number 11/241 Exploring marine tourism as a supplemental livelihood to artisanal fisheries in less developed nations.

Dear Mark

Thank you for providing written evidence as requested. I am pleased to advise that it satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC) at their meeting on 12 September 2011 and I have approved your ethics application. This delegated approval is made in accordance with section 5.3.2.3 of AUTEC's *Applying for Ethics Approval: Guidelines and Procedures* and is subject to endorsement at AUTEC's meeting on 31 October 2011.

Your ethics application is approved for a period of three years until 7 October 2014.

I advise that as part of the ethics approval process, you are required to submit the following to AUTEC:

A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/research/research-ethics/ethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 7 October 2014;

A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/research/research-ethics/ethics>. This report is to be submitted either when the approval expires on 7 October 2014 or on completion of the project, whichever comes sooner;

It is a condition of approval that AUTECH is notified of any adverse events or if the research does not commence. AUTECH approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are reminded that, as applicant, you are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

Please note that AUTECH grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to make the arrangements necessary to obtain this. Also, if your research is undertaken within a jurisdiction outside New Zealand, you will need to make the arrangements necessary to meet the legal and ethical requirements that apply within that jurisdiction.

**When communicating with us about this application, we ask that you use the application number and study title to enable us to provide you with prompt service. Should you have any further enquiries regarding this matter, you are welcome to contact me by email at [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz) or by telephone on 921 9999 at extension 6902.**

On behalf of AUTECH and myself, I wish you success with your research and look forward to reading about it in your reports.

**Yours sincerely,**

**Dr Rosemary Godbold**

**Executive Secretary**

**Auckland University of Technology Ethics Committee**

**Cc: Brooke Amanda Porter [bporter@aut.ac.nz](mailto:bporter@aut.ac.nz)**

# Participant Information Sheet



Date Information Sheet Produced: 07-10-2011

## **Project Title**

Exploring marine tourism as a supplemental livelihood to artisanal fisheries in less developed nations.

## **An Invitation**

My name is Brooke Porter and I am a student at Auckland University of Technology working in partnership with University of the Philippines. This research is a PhD project that will ask a fishing community for its opinions regarding benefits and costs associated with marine tourism. Your participation will contribute to the understanding of fishers' perceptions of marine tourism. Your participation is voluntary and you may withdraw from the project at any time during the data collection. It is your choice to participate in this research; prior relationships or standings with partner organizations will not be affected by your choice.

## **What is the purpose of this research?**

Many fisheries are in decline making fishing a difficult job. There are many things in common between fishing and marine tourism. For example fishers know a lot about the marine environment. Also, fishers often use the same kinds of equipment used in marine tourism such as boats or fishing gear. In some places tourism has been used to provide additional income, but the community is often left out of the planning process. The goal of this research is to ask

the opinions of a fishing community about marine tourism and teach the community a research process so that they can make decisions about their future on their own.

The study will try to understand how marine tourism affects an artisanal fishing community.

Therefore the following research question will be explored in depth:

Is marine tourism perceived as a viable alternative livelihood by and for artisanal fishing communities in developing nations?

### **How was I identified and why am I being invited to participate in this research?**

You were chosen to participate based on your role in the fishing community. I used the University of the Philippines, or a referral from another member of the community to obtain your contact information.

#### *Semi-structured interviews*

If you were identified as a participant for the semi-structured interview, this choice was based on your household's dependency on the fishery and length of time in the *barangay*.

Participants for the semi-structured interview must be members of fishing households that are at least 50% dependent on the fisheries and have lived more than 10 years in Barangay Victory.

#### *Focus groups*

If you were chosen to participate in the focus group, this choice was made on behalf of your age (+20 years) and your role as a member of the fishing community.

### **What will happen in this research?**

#### *Semi-structured interviews*

These interviews will explore your perceptions as a fisher or member of a fishing household. If you are participating in the semi-structured interviews, you will be asked questions about

fishing as a livelihood, the current status of the fisheries and marine ecosystems, your understanding of marine tourism and how marine tourism affects the fisheries.

### *Focus groups*

The focus group meetings will explore the perceptions of community members on various topics. The composition of the focus groups (e.g., male or female or seniors) will be decided by you and the other participants. Trainings on environment, hospitality and tourism may be offered during the data collection process.

### **What are the discomforts and risks?**

Research is often a long process and you may be at risk of disappointment if, after the research cycle, a desired level change is not achieved. Also, change may take some time so you may become disappointed with the lack of immediate benefits.

Additionally, some of the discussions may involve the occurrence of illegal fishing. When these types of questions are asked I will not ask for names, locations, times or specific incidents, but rather ask about the general occurrences.

### **How will these discomforts and risks be alleviated?**

During the data collection, I will provide constant feedback as to where we are in the research process. This information should help you and the community plan for the future.

Your anonymity will be protected during this research and any incriminating information will be discarded from the data.

### **What are the benefits?**

The results from this research will be used towards the write up of a thesis for my PhD. Your responses will provide a community-friendly model to international aid agencies. As part of the action research process, I will be able to provide expertise and basic trainings on subjects such

as the marine environment and tourism. Such trainings, if desired, will be free to the participants and the community.

**Will my participation affect the Sea Cucumber Project (specific to Victory)?**

No. This project is not connected to the Sea Cucumber Ranch project. Therefore information obtained from this project will not affect the Sea Cucumber Ranch Project or any other initiatives within Victory. This is independent research that is unrelated to any other projects.

**How will my privacy be protected?**

Only I will know your identity when we meet in person. Unless you wish to be identified, I will use only pseudonyms or arbitrary capitals in my notes and records. Data will be presented in aggregated form for the final write up.

**What are the costs of participating in this research?**

There are no monetary costs associated with participation. If you wish to participate, the time requirements will not exceed two hours per week. Meetings will be conveniently scheduled.

**What opportunity do I have to consider this invitation?**

You have until 25 February 2011 to consider this invitation. Formal data collection will begin in March 2012.

**How do I agree to participate in this research?**

To participate in this research, you will be asked to give verbal or written consent. Before data collection begins, I will provide you with the necessary forms and/or information.

**Will I receive feedback on the results of this research?**

During the course of the data collection, you will receive regular feedback from me on the results of this research. During these structured meetings, you will be able to comment on the

findings. You will also be shown the drafts of the results during the write-up and the final version.

### **Summary of expectations:**

#### **This project WILL:**

- Ask you and other members of fishing households to describe the marine environment and fishing as a livelihood.
- Ask you and other members of the fishing community as a group to define marine tourism and to identify their potential roles in marine tourism.
- Ask you and other members of the fishing community as a group to discuss the logistics and changes or adaptations necessary for fishers to partake in marine tourism activities.
- Teach you and other members of the fishing community how to research and plan for opportunities associated with marine tourism.
- Protect your confidentiality and anonymity.

#### **This project will NOT:**

- Create a tourism business for you.
- Provide you with equipment or monetary benefits (e.g., new boats, gear) to anyone.

#### **This project MAY provide you with:**

- Basic environmental awareness education.
- Basic tourism and hospitality education.
- Assistance with planning for a future tourism business.

### **What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Mark Orams, mark.orams@aut.ac.nz, *country code (64)* 921 9999 ext 6410

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTECH, Dr Rosemary Godbold, rosemary.godbold@aut.ac.nz, *country code (64)* 921 9999 ext 6902.



**Whom do I contact for further information about this research?**

**Researcher Contact Details:**

Brooke Porter, bporter@aut.ac.nz, *country code (63) 9272003815*

**Project Supervisor Contact Details:**

Mark Orams, mark.orams@aut.ac.nz, *country code (64) 921 9999 ext 6410.*

**Approved by the Auckland University of Technology Ethics Committee on *October 7<sup>th</sup>, 2011*,  
AUTEC Reference number **11/241**. (*Note: The Participant should retain a copy of this form*).**

### Appendix 3: Participant consent form

#### Consent Form

For use when interviews are involved.



**Project title:** Exploring marine tourism as a supplemental livelihood to artisanal fisheries in less developed nations

**Project Supervisor:** Mark B. Orams

**Researcher:** Brooke Amanda Porter

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 07-10-2011.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that notes will be taken during the interviews and that they will also be audiotaped and transcribed.
- ☐ I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- ☐ If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- ☐ I agree to take part in this research.
- ☐ I wish to receive a copy of the report from the research (please tick one):

**Yes** ☐ **No** ☐

Participant's signature:.....

Participant's name:.....

Participant's contact details (if appropriate):.....

Date:

**Approved by the Auckland University of Technology Ethics Committee on October 7<sup>th</sup>, 2011, AUTEK Reference number 11/241. (Note: The Participant should retain a copy of this form).**

## Appendix 4: Interpreter consent form

### Confidentiality Agreement



*For an interpreter.*

**Project title:** Exploring marine tourism as a supplemental livelihood to artisanal fisheries in less developed nations.

**Project Supervisor:** *Mark B. Orams*

**Researcher:** *Brooke Amanda Porter*

---

- ☐ I understand that the interviews meetings or material I will be asked to translate is confidential.
- ☐ I understand that the content of the interviews meetings or material can only be discussed with the researchers.
- ☐ I will not keep any copies of the translations nor allow third parties access to them.

Translator's signature: .....

Translator's name: .....

Translator's Contact Details (if appropriate):

.....

Date:

Project Supervisor's Contact Details (if appropriate):

.....

Approved by the Auckland University of Technology Ethics Committee on *October 7<sup>th</sup>, 2011*, AUTECH  
Reference number **11/241**.

## Appendix 5: Research assistant consent form

*Note: The Translator should retain a copy of this form.*

### Confidentiality Agreement



*For an intermediary or research assistant.*

**Project title:** Exploring marine tourism as a supplemental livelihood to artisanal fisheries in less developed nations.

**Project Supervisor:** Mark B. Orams

**Researcher:** Brooke Amanda Porter

---

- ☐ I understand that all the material I will be asked to record is confidential.
- ☐ I understand that the contents of the Consent Forms, tapes, or interview notes can only be discussed with the researchers.
- ☐ I will not keep any copies of the information nor allow third parties access to them.

Intermediary's signature: .....

Intermediary's name: .....

Intermediary's Contact Details (if appropriate):.....

Date: .....

Project Supervisor's Contact Details (if appropriate):

.....

**Approved by the Auckland University of Technology Ethics Committee on October 7<sup>th</sup>, 2011, AUTEK**

**Reference number 11/241. Note: The Intermediary should retain a copy of this form.**

## **Appendix 6: Role of Bureau of Fisheries and Aquatic Resources (BFAR)**

The Bureau of Fisheries and Aquatic Resources (BFAR) is the government agency responsible for the development, improvement, management and conservation of the country's fisheries and aquatic resources. It was reconstituted as a line bureau by virtue of Republic Act No. 8550 (Philippine Fisheries Code of 1998). The bureau is under the Department of Agriculture.

As a line bureau, BFAR has the following functions:

- Prepare and implement a comprehensive National Fisheries Industry Development Plan;
- Issue licenses for the operation of commercial fishing vessels;
- Issue identification cards free of charge to fishworkers engaged in commercial fishing;
- Monitor and review joint fishing agreements between Filipino citizens and foreigners who conduct fishing activities in international waters and ensure that such agreements are not contrary to Philippine commitment under international treaties and convention on fishing in the high seas;
- Formulate and implement a Comprehensive Fishery Research and Development Program, such as, but not limited to, sea farming, sea ranching, tropical / ornamental fish and seaweed culture, aimed at increasing resource productivity improving resource use efficiency, and ensuring the long term sustainability of the country's fishery and aquatic resources;
- Establish and maintain a comprehensive Fishery Information System;
- Provide extensive development support services in all aspects of fisheries production, processing and marketing;
- Provide advisory services and technical assistance on the improvement of quality of fish from the time it is caught (i.e., on board fishing vessels, at landing areas, fish markets, to the processing plants and to the distribution and marketing chain);
- Coordinate efforts relating to fishery production undertaken by the primary fishery producers, LGUs, FARMCs, fishery and organization / cooperatives;
- Advise and coordinate with LGUs on the maintenance of proper sanitation and hygienic practices in fish markets and fish landing areas;

- Establish a corps of specialists in collaboration with the Department of National Defense, Department of the Interior and Local Government and Department of Foreign Affairs for the efficient monitoring, control and surveillance of fishing activities within Philippine territorial waters and provide the necessary facilities, equipment and training thereof;
  - Implement and inspection system for import and export of fishery / aquatic products and fish processing establishments consistent with international standards to ensure product quality and safety;
  - Coordinate with LGUs and other concerned agencies for the establishment of productivity-enhancing and market development programs in fishing communities to enable women to engage in other fisheries / economic activities and contribute significantly to development efforts;
  - Enforce all laws, formulate and enforce all rules and regulations governing the conservation and management of fishery resources, except in municipal waters and to settle conflicts of resource use and allocation in consultation with the NFARMC, LGUs and local FARMCs;
  - Develop value-added fishery products for domestic consumption and export;
  - Recommend measures for the protection / enhancement of the fishery industries;
  - Assist the LGUs in developing their technical capability in the development, management, regulation conservation and protection of the fishery resources;
  - Formulate rules and regulations for the conservation and management of straddling fish stocks and highly migratory fish stocks; and
  - Perform such other related functions, which shall promote the development, conservation, management protection and utilization of fisheries and aquatic resources.
- (<http://www.bfar.da.gov.ph/pages/AboutUs/maintabs/aboutus.html>)

## **Appendix 7: Fisherfolk interview guide**

### **I. Social**

#### **1. Socio-demographics**

- a. What is your age?
- b. What is your first language, what other languages do you speak?
- c. Where were you born?
- d. Where have you travelled?
- e. Where has your family travelled?
- f. Are you a member of the people's organization?
- g. Are you a member of the village council?
- h. What is your weekly/monthly income?
- i. What type of education do you have (formal/informal)?

#### **2. Perceptions of livelihoods**

- a. What is your primary occupation?
- b. Do you participate in any other sideline activities or jobs?
- c. How much time is spent on each activity?
- d. Are you a gleaner? Do you sell any products from gleaning (shell, meat)?
- e. Are you a member of a fishing cooperative or are you financed?
- f. How would you describe fishing as an occupation/job?
- g. Are you satisfied with your current occupation? If no, why?
- h. If there were new opportunities to change your occupation, would you leave your current occupation?
- i. What are your expenses?

#### **3. Experience in the fishery**

- a. How long have you been fishing?
- b. Are you registered as a fisher?
- c. Do you own or rent a boat?
- d. What fishing method do you use (e.g., boat or gleaning)?
- e. What types of fishing gear types do you use?
- f. Do you think these gears affect the environment? How?
- g. What is your daily catch? Is this enough? If no, why do you think you are not catching enough fish?
- h. How have the fisheries changed in the past 10 years?
- i. What species do you target? Is this different from 10 years ago?
- j. Have your fishing practices changed since you began fishing?
- k. Where did you fish when you started fishing?
- l. Where do you fish now?

#### 4. Development programmes

- a. Are there NGOs or academic institutions in your community that implement developmental programs? Which ones?
- b. If so, what projects do you participate in?
- c. Does the *Barangay* Council or People's Organization (PO) have projects related to marine conservation?

## II. Environmental

### 1. Marine management awareness

- a. Are there any marine management projects on Santiago?
- b. Who is responsible for the near shore marine management and enforcement?
- c. Who is responsible for fisheries regulations?
- d. How is the *barangay* involved in marine management?

### 2. Active conservation

- a. Are some fishing methods more sustainable or environmentally friendly than others? If yes, why?
- b. Which fishing methods are illegal?
- c. Why do you think people use illegal methods?
- d. Why are these methods illegal?
- e. What other issues affect the marine environment? (e.g., run-off, derelict gear, effluent)?

### 3. Tourism and the marine environment

- a. Are you familiar with the term tourism? If yes, how did you learn about it (e.g., TV, family, travel)?
- b. How do you feel about tourists (tourista/visita)?
- c. What kind of tourism exists in Bolinao?
- d. What kind of tourism exists in Santiago?
- e. How does tourism affect the fisheries?
- f. How does tourism affect the marine environment?

### 4. Perceived lifestyle changes associated with tourism

- a. How do you feel about tourism in the area?
- b. How might tourism affect the community?
- c. How would you feel about visitors coming into the community?
- d. What do you think visitors would be interested in learning about when they visit Victory?
- e. If I were a tourist/visitor, what would you show me?
- f. What kinds of opportunities are available for you in tourism?
- g. What opportunities exist for tourism in Victory?
- h. How do you think tourism would affect your livelihood?
- i. Would you like to be involved in tourism? Why or why not?

Is there anything else you want to tell me? Did you understand all of the questions I asked?



## **Appendix 8: Key informant interview guide**

### **I. Social**

#### **1. Socio-demographics**

- a. What is your age?
- b. What is your first language, what other languages do you speak?
- c. Where were you born?
- d. Where have you travelled?
- e. Where has your family travelled?
- f. Are you a member of any organizations?
- g. What type of education do you have (formal/informal)?

### **II. Environmental**

#### **1. Marine management awareness**

- a. Are there any marine management projects in [project area]?
- b. Who is responsible for the near shore marine management and enforcement?
- c. Who is responsible for fisheries regulations?
- d. How is the *barangay* involved in marine management?

#### **2. Active conservation**

- a. Are some fishing methods more sustainable or environmentally friendly than others? If yes, why?
- b. Which fishing methods are illegal?
- c. Why do you think people use illegal methods?
- d. Why are these methods illegal?
- e. What other issues affect the marine environment? (e.g., run-off, derelict gear, effluent)?

### **III. Tourism**

#### **1. Tourism and the marine environment**

- a. How do you feel about tourists?
- b. What kind of tourism exists in your project area?
- c. How does tourism affect the fisheries/marine environment?
- d. Do you think there are regulations in place that help protect the marine environment?

## **2. Experiences with tourism and the community**

- a. (Tourism sector): How did you get the idea for tour business/become a tour operator? (Fisheries sector): What are your feelings on tourism as a livelihood diversification strategy for fisherfolk?
- b. How did you access/engage the community?
- c. (Tourism sector): How do/did you feel about introducing tourism in the area (Fisheries sector): How do you think tourism affects fisherfolk?
- d. How does/did you think tourism would affect the community?
- e. How did you feel about introducing visitors into the community?
- f. What do you think visitors are interested in learning about when they visit?
- g. How do you think tourism would affect the livelihoods of community members?
- h. Do you think there are regulations in place that help protect the community?

## **3. The effects of tourism**

- a. How does your project affect the community?
- b. Have there been any complaints associated with your projects?
- c. How have visitors/tourists engaged with the community?
- d. How has the tourism operation effected the marine environment?
- e. How has the tourism operation affected the community?
- f. How has the tourism operation affected the local economy?
- g. Did you foresee these effects?
- h. How do you feel about legislation/regulations concerning tourism projects?

Is there anything else you want to tell me?

## **Appendix 9: Access to health care**

Access to health care is an issue in the majority of remote fishing communities in the developing world (Bene, 2003; Pomeroy, 2006). This creates vulnerability within these groups and often results in conflicting approaches or medical misinformation. Large food-product corporations have targeted vulnerable groups such as the poor, for many decades (see Muller, 1974). Such a scenario was interpreted from the data when one of the participants who explained that supplementing breast milk with formula was healthier and the best choice for her children. Having spoken about this incident with a midwife in Manila (D. Gustafson, personal communication, Feb 15, 2012) and having witnessed the aggressive advertising campaigns of large corporations for formulas and milk supplements targeted at children during the research, I believe that such campaigns were at least partially responsible for influencing the decisions of the affected participant families to supplement with formula, even in the remote locales of this research.

While the data from this study revealed this issue unexpectedly, similar medical and nutritional misinformation was reported during the recovery efforts for Typhoon Yolanda/Haiyan, a super-typhoon that affected South Luzon in November 2013. This typhoon was the largest storm on record to hit the Philippines and brought devastation to many areas in South Luzon as well as the Visayas. Effects of the typhoon were felt in two of the research sites (Decabobo and Dimipac). However, as the typhoon hit following the conclusion of the data collection, the typhoon did not influence the data.

### *Health care access and Typhoon Yolanda/Haiyan*

Typhoons are a common occurrence throughout the Philippines with around 20 storms per year, and, therefore, affect many coastal communities annually. Thus, cases from the relief efforts of Typhoon Yolanda/Haiyan have been used to support the findings, as they were considered relevant to the research. After Typhoon Yolanda/Haiyan a number of large corporations began distributing free milk formula to affected mothers as a contribution to typhoon relief efforts (M. Turner, personal communication, November 2013). The distribution

of complimentary formula has been used as a promotional strategy of the formula-producing companies in the past (Muller, 1974). This strategy has also been used in association with relief efforts in the past and has been shown to pose a significant risk to the affected infants and children (Campbell, 2008). Campbell (2008) wrote, “Infants and children are among the most vulnerable victims of natural or human induced disasters. Interrupted breastfeeding and inappropriate complementary feeding heighten the risk of malnutrition, illness and mortality” (p. 43). These vulnerabilities were reported following Typhoon Yolanda/Haiyan by the *Bayanihan para sa Mag-Ina* Organisation, a Filipino project aimed at supporting mothers and protecting infants and young children during disaster situations. During the typhoon relief efforts, the group continued to post updates and information about mothers and children on their social media site. The group shared the story of a mother, whose child was diagnosed with kwashiorkor and bronchopneumonia as a result of medical misinformation:

Her doctor told her not to breastfeed because she had a urinary tract infection. Since she feels she still had a urinary tract infection, she continued to feed her child with ALASKA [milk product] and stretched each packet to as long as she could go before buying another one. (Bayanihan para sa Mag-Ina, 2013)

This story is not uncommon and depicts a common scenario of mothers in remote areas, such as fishing communities. As a result of both misinformation and the common practice of the distribution of free milk formula products in response to natural calamities in the Philippines, many families struggle to make informed decisions when it comes to infant care. These issues create additional expenses and vulnerabilities for families already living a subsistence lifestyle.

## **Appendix 10: The businessman and the fisherman**

A wealthy entrepreneur from New York went on a two-week seaside holiday on the coast of Costa Rica. On his first day there, he was impressed with the quality and taste of the exotic fish he bought from a local fisherman. The next day, the American encountered the native Costa Rican at the dock, but the Costa Rican had already sold his catch.

The American discovered that the fisherman had a secret fishing spot where the fish were plenty and the quality superb. He only caught five or six fish a day, however.

The New Yorker asked the local fisherman why he didn't stay out longer at sea and catch more fish.

"But Señor," the fisherman replied, "I sleep in late until nine or ten every morning; I play with my children; I go fishing for an hour or two; in the afternoon I take a one- or two-hour siesta; in the early evening I have a relaxing meal with my family; and later in the evening, I go to the village and drink wine, play guitar, and sing with my amigos. As you can see, I have a full, relaxed, satisfying, and happy life."

"You should catch a lot more fish," the American declared. "That way you can prepare for a prosperous future. Look, I am a businessman from New York and I can help you become a lot more successful in life. I received an MBA from Harvard, and I know a lot about business and marketing."

The American continued, "The way to prepare for the future is to get up early in the morning and spend the whole day fishing, even going back for more in the evening. In no time, with the extra money, you could buy a bigger boat. Two years from now, you can have five or six boats that you can rent to other fishermen. In another five years, with all the fish you will control, you can build a fish plant and even have your own brand of fish products."

"Then, in another six or seven years," the American rambled on, while the Costa Rican looked more and more bewildered, "you can leave here and move to New York or San Francisco, and

have someone else run your factory while you market your products. If you work hard for fifteen or twenty years, you could become a multimillionaire. Then you wouldn't have to work another day for the rest of your life."

"What would I do then, Señor?" responded the fisherman.

Without any hesitation, the wealthy American businessman enthusiastically proclaimed, "Then you will be able to move to a little village in some laid-back country like Mexico where you can sleep in late everyday, play with the village children, take a long siesta every afternoon, eat meals while relaxing in the evening, and play guitar, sing, and drink wine with your amigos every night" (Albion, 1999, n.p.).