Tourism Recovery after the 2009 Tsunami in Samoa

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Abstract

On September 29th 2009, the 8.3 magnitude earthquake off of the southern coast of Samoa in the Pacific Ocean generated massive tsunami waves resulting in severe devastation for many villages and contamination of their coastal areas. The disaster greatly impacted the tourism infrastructure, economy, environment, water quality and psychological aspect of the residents in the affected areas. The aim of this thesis was to examine the recovery of tourism after the September 2009 tsunami. The objectives were to: 1) explore the immediate impacts tourism businesses suffered from the tsunami; 2) identify the emergency responses that occurred in the aftermath; 3) explain the issues and challenges arising from the recovery process and; 4) examine the strategies and opportunities that tourism operators and relevant organisations are using to recover tourism in the district. This involves examining the preparedness programs for future disasters.

A qualitative approach was used to accomplish the objectives of the study. Four tourism businesses that were affected in the Safata district were selected for this research. Experiences and views of the affected tourism businesses were presented and analysed through media reports and document review, semi-structured interviews and site observations. Interviews were also carried out with key informants from relevant tourism organisations that were involved in the tsunami response and recovery efforts.

This author believes that this is the first tourism study carried out on tourism recovery after the 2009 tsunami and specifically a study which presents a tourism case study from the Safata district. It intends to provide insight on the issues facing the tourism businesses hoping to recover, as well as finding out their preparedness programs and disaster plans for future disasters.

Results show that there was no disaster plan for the tourism industry before the tsunami. The tsunami has caused severe damage to tourism businesses such as premises being demolished, equipment destruction, psychological effects and environmental damage. Results also show the rapid response of the local communities, government and overseas agencies. It was also clear that although the affected tourism businesses did not have any disaster plans before the tsunami, they showed willingness to develop and become proactive in implementing a disaster plan as a means of preparing for future disasters. This research will help tourism businesses and relevant organisations set strategic actions or procedures towards developing a disaster plan to prepare for and mitigate future disasters.
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### Abbreviations

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<tr>
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<th>Full Form</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>AT</td>
<td>Alternative Tourism</td>
</tr>
<tr>
<td>CRED</td>
<td>Centre for Research on the Epidemiology Disasters</td>
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<tr>
<td>DMO</td>
<td>Disaster Management Office</td>
</tr>
<tr>
<td>ERF</td>
<td>Early Recovery Framework</td>
</tr>
<tr>
<td>IDNDR</td>
<td>International Decade for Natural Disaster Reduction</td>
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<tr>
<td>IFRC</td>
<td>International Federation of Red Cross</td>
</tr>
<tr>
<td>IFRCRCS</td>
<td>International Federation of Red Cross and Red Crescent Societies</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Funds</td>
</tr>
<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature and Natural Resources</td>
</tr>
<tr>
<td>MNRE</td>
<td>Ministry of Natural Resources and Environment</td>
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<tr>
<td>MOFS</td>
<td>Ministry of Finance Samoa</td>
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<td>MPA</td>
<td>Marine Protected Areas</td>
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<td>NDMP</td>
<td>National Disaster Management Plan</td>
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<tr>
<td>NGOs</td>
<td>Non Government Organisations</td>
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<td>NTTC</td>
<td>Northern Territory Tourism Organisation</td>
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<tr>
<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
</tr>
<tr>
<td>SAP</td>
<td>Strategy Action Plan</td>
</tr>
<tr>
<td>SD</td>
<td>Sustainable Development</td>
</tr>
<tr>
<td>SHA</td>
<td>Samoa Hotels Association</td>
</tr>
<tr>
<td>SIDS</td>
<td>Small Island Developing States</td>
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<tr>
<td>SOPAC</td>
<td>South Pacific Applied Geoscience Commission</td>
</tr>
<tr>
<td>SPREP</td>
<td>South Pacific Regional Environmental Programme</td>
</tr>
<tr>
<td>SPT</td>
<td>South Pacific Travel</td>
</tr>
<tr>
<td>SRCS</td>
<td>Samoa Red Cross Society</td>
</tr>
<tr>
<td>STA</td>
<td>Samoa Tourism Authority</td>
</tr>
<tr>
<td>STD</td>
<td>Sustainable Tourism Development</td>
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<tr>
<td>STDP</td>
<td>Samoa Tourism Development Plan</td>
</tr>
<tr>
<td>SVB</td>
<td>Samoa Visitors Bureau</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>TERI</td>
<td>The Enterprise Research Institute</td>
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<tr>
<td>TTRP</td>
<td>Tourism Tsunami Beach Fale Re-building Program</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Education, Scientific and Cultural Organisation</td>
</tr>
<tr>
<td>UNISDR</td>
<td>United Nations International Strategy for Disaster Reduction</td>
</tr>
<tr>
<td>UNOCHA</td>
<td>United Nations Office for the Coordination of Humanitarian Affairs</td>
</tr>
<tr>
<td>VFR</td>
<td>Visiting Friends and Relatives</td>
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<tr>
<td>WTO</td>
<td>World Tourism Organisation</td>
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<tr>
<td>WTTC</td>
<td>World Travel and Tourism Council</td>
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Chapter I: Introduction

1.1. Introduction

This chapter provides introductory information on the research topic. It begins with background information and describes the general area of interest. Further it includes the aim and objectives of the research and goes on to outline the significance of the research, an overview background of the study area and finally the thesis structure. This research specifically discusses information about the impact of tsunami on tourism in Samoa and tourism operators and relevant organisations response to these impacts. It also focuses on examining the recovery of tourism in Samoa after such an event as well as explaining the preparedness efforts by the tourism operators and relevant organisations for future disasters.

1.2. Background of Research

Tourism is regarded as one of the fastest growing industries worldwide both in economic and development terms (WTO, 2009). At the same time, tourism has become increasingly threatened by natural and man-made disasters with great potential for loss, damage and disruption of business survival. Tourism in developing countries, as commonly found in the South Pacific region, have the least resilience and capacity to respond to disasters and are particularly vulnerable to natural disasters such as tsunamis, earthquakes and tornadoes.

Samoa is regarded as one of the most disaster prone countries in the South Pacific and amongst other Small Island Developing States (SIDS) such as Vanuatu, Tonga and Papua New Guinea (Nemeth & Cronin 2009). Because of the geological and geographical characteristics of Samoa, together with the nature of tectonic activity around the Pacific Rim, it makes the country vulnerable to earthquakes, tsunamis, massive water movements, sea level rise and drought (Nemeth et al 2009). The geologic history of Samoa includes 3 active volcanoes, and the increasing frequent occurrence of
tropical cyclones causing intensive damage (Wood 2002). As is common in SIDS, Samoa’s vulnerability is influenced by its geographic isolation, small land size, limited institutional capacity and weak economy (Craigwell 2007). Recent examples of natural disasters in Samoa include cyclones Ofa in 1990, Val in 1991 and Heta in 2004 as well as the devastating tsunami in 2009, all have caused huge damage and loss across all sectors and communities in the country.

This thesis is a result of the author’s unexpected motivation and interest followed by the phenomenal tsunami that hit her country, Samoa on September 29th in 2009. Before the tsunami, this thesis was initially focused on examining ‘ecotourism as a useful tool in managing and conserving the marine protected areas in the Safata district in Samoa’. However, since it was the first tsunami that ever hit Samoa, the author decided to change her topic to be in line with the main subject of local and national discussions and concerns at the time. Underpinning ideas from the initial topic have guided and directed the research to identify tourism recovery from the tsunami on the south coastal area of Samoa with particular reference to the district of Safata.

Therefore this thesis aims to examine the impacts of the 2009 tsunami on tourism operations in the Safata district in Samoa (see Figures 1 and 4). The research also seeks to explore how tourism operators are responding to the destruction they suffered. It goes on to examine the strategies and opportunities that tourism operators and relevant stakeholders have used to recover and rebuild tourism in Safata. These include the examination of preparedness plans, and programs and strategies that tourism operators and relevant organisations may have in place for future natural disasters.

The purpose of this chapter is to introduce the research topic, “recovery of tourism in the Safata district after the 2009 tsunami in Samoa”. It goes on to provide a brief background of the research context, an overview of the study area and finally to identify the thesis objectives and outline the thesis structure.
1.2.1. General Area of Interest

The author’s interest in pursuing this topic was motivated and enforced by the fact that Samoa in its history has never been hit by a tsunami. Other forms of natural disasters such as cyclones have frequently hit the country over the past years. For instance, Samoa was struck by cyclones in 1990 (cyclone Ofa) and 1991 (cyclone Val) and another one in 2004 (cyclone Heta). Despite the numerous occurrences of these disasters and their severity, a search in the literature has showed very limited information about their likely impacts on tourism in Samoa.

Noticeable research after these disasters (SOPAC 1990, OCHA 2004, Polutea 2005), reported serious destruction on economical and environmental developments but less impacts or issues on social and tourism developments. However after the cyclones, tourism was seen as the way forward with high recognition from the government as it realised the catastrophic damage to the agriculture and fisheries sectors which led to declined economic benefits from both sectors (Twining-Ward 2005). The growth of tourism since then has become very steady and rapid and is still continuing to grow in both economic and development terms (Scheyvens 2005).

Therefore, this thesis is crucial as a way to examine the impact of natural disasters on tourism development in Samoa with particular reference to businesses that were most affected in the Safata district. This research is also important because it is this author’s belief that it is one of the first studies based on tourism recovery after the tsunami in Samoa.

1.2.2. Problem statement

A review of the literature on related cases about tourism recovery from tsunami shows a plethora of research on the tsunami in the Indian Ocean in December 2004. There were a high number of tourist deaths reported from the affected countries such as India, Maldives, Thailand, Indonesia and Malaysia which implies a great amount of damage
caused to the tourism businesses. However, impacts of the natural disaster on tourism specifically have not been well researched (Rittichainuwat 2006, Dore et al 2003). It was noted by Faulkner (2001, p 136) in his study of tourism disaster management that;

relatively little systematic research has been carried out on disaster phenomena in tourism, the impacts of such events on the tourism industry and the responses of industry and relevant government agencies to cope with these impacts.

Studies on the Indian Ocean tsunami focused on effects of the tsunami on the entire tourism industry. Studies looked at elements such as the decline tourist flows, tourist perceptions on revisiting the affected areas, residents’ perceptions of post tsunami plans by the governments, decreased occupancy rates and arising issues from incorrect media reports on tourism (Cheung et al 2006, Sharpley 2005). However, there were very limited studies that reported the tourism operators and relevant organisations’ response to the impacts and the strategies tourism operations and relevant organisations used to recover tourism in the affected areas (Rittichainuwat 2006, UNDP 2005)).

This thesis aims at filling this gap by examining the efforts and strategies that tourism operators and relevant organisations in the Safata district in Samoa are using to recover tourism from the 2009 tsunami. By doing this, it aims to contribute to the existing literature on tourism recovery from tsunami with particular reference to Samoa.

1.2.3. **Aim and Objectives**

This research is guided by the following aim and objectives:

**Research Aim:** To examine how tourism businesses in the Safata district are recovering from the 2009 tsunami in Samoa.
Objectives:

1. To explore the immediate impacts tourism businesses suffered from the tsunami.
2. To identify the emergency responses that occurred in the aftermath.
3. To explain the issues and challenges arising from the recovery process.
4. To examine the strategies and opportunities that tourism operators and relevant organisations are using to recover tourism in the district. This involves examining the preparedness programs for future disasters.

1.2.4. Significance of Study

This research is vital for several reasons. First, tourism is a major economic development and the biggest source of foreign exchange in Samoa (Scheyvens 2005, Twining-Ward 2005). The tsunami was a phenomenal and devastating disaster that has struck the shores of one of the popular tourist areas on the south coast of Samoa. Most of the tourism businesses around the affected areas suffered severe damage, thus this research is important in providing useful insights into finding out the impacts and understanding of how the tourism businesses responded to these impacts.

Secondly, research on tourism specific areas in Samoa is very limited as noted in the literature search despite a few research projects being undertaken on broad areas such as tourism planning review (Pearce 2000), growth of beach fale tourism (Scheyvens 2005) and STD indicators in Samoa (Twining-Ward et al 2002). It is obvious that these studies were predominantly carried out by foreign researchers; therefore this research is an important contribution from a Samoan research perspective.

And thirdly, this research is important as it explores the responses of tourism operators and relevant organisations on how to cope with the impacts of a disaster based on what they experienced from the tsunami. In doing this, findings from this research could help provide essential guidelines to direct and assist tourism operators and relevant organisations to identify and formulate disaster management plans and warning systems suitable to the tourism industry. It appears from the interviews with tourism operators
that businesses are willing to commit to developing disaster management plans as well as enforcing disaster preparedness programs for their staff and visitors.

1.3. **Background of Study Area**

The next sections give an overview of Samoa and tourism in Samoa.

1.3.1. **General Overview of Samoa**

Samoa (see Figure 1) is a small independent island in the South Pacific and was the first country that gained independence from New Zealand administration in 1962. Samoa was formerly known as Western Samoa until 1997, when it adopted the name ‘Samoa’. It is made up of four inhabited and five uninhabited islands with a total land area of 2935 square kilometers, Savaii being the largest island, accounting for approximately 1610 square kilometers (Samoa Department of Statistics 2008). Samoa’s capital Apia and international airport are located on the main island of Upolu (see Figure 1).

The total population of Samoa was estimated to be 218,000 in July 2008 of whom 92 percent are Samoan and almost three quarters live on Upolu (Samoa Department of Statistics 2008). Every Samoan is expected to live and serve by respecting the aspects of the traditional distinctive Samoan way of life called the ‘fa’aSamoan’. Fairbairn-Dunlop (1994, cited in Scheyvens 2005 p.124) describes the fa'aSamoan as:

> a system of chiefly rule in which every person is expected to know their place and the correct behaviour patterns of their place. ‘Correct behaviour’ is the dynamic which ensures the smooth running of the chiefly system, the norm being that one gives service and respect to those in higher status and can expect to receive the same from those of lower status.

The social construction of the Samoan culture under the fa'aSamoan principles means that younger people are expected to respect elders and comply with their demands. The children are not expected to question their parents and are always expected to do what
they are told to do. All members of the extended family are responsible to serve the chief of their family with dignity and respect. Religiously, the church minister is regarded as the chief of the church and everyone pays the minister the same respect as they would to their family chief.

Figure 1: Map of Samoa

(Source: Ministry of Finance-MOF2008)
1.3.2. Overview of tourism in Samoa

Tourism is still at its youthful stage of development in Samoa. Its planning, development and management is highly controlled by the aspects of fa’a Samoa as “a key reason why Samoa has taken a cautious attitude towards tourism” (Fairburn-Dunlop 1994 cited in Scheyvens 2005, p 190). On the same note, Page & Lawton (1996, p 299) commented that ‘Western Samoa has maintained a cautious attitude towards tourism, fearing that the Samoan way of life might be disrupted by an influx of foreign visitors’.

From this, respecting the values and aspects of the fa’a Samoa is the heart of tourism success. These values include conserving the natural and cultural environments, building environmental and cultural awareness and generating economic benefits and development opportunities for the local people whilst providing quality recreational experiences for the visitors (Scheyvens 2005, Twining-Ward 2002).

Tourism has become a high priority for development in Samoa after the devastating cyclones in 1990s, which caused huge damage to the agricultural sector as well as problems caused by the taro leaf blight and the African snail (Pearce 2000). Since then tourism has continuously made a significant contribution to the economy of Samoa. In 2008, tourism contributed SAT(Samoan Tala)$106 million to Samoa’s GDP, and an approximate SAT$16 contribution to government revenues generating 5,400 tourism direct employments, which is 10% of national employment (STDP 2009-2013). This is evident by the significant growth in both tourist arrivals and tourism expenditure over the last ten years (see Figures 2 and 3).

Visitor arrivals have grown in a steady and rapid rate reaching 125,000 in 2008 from 41,050 tourists in 1998 (see Figure 2). Figure 2 shows the growth in the number of visitors by source market with New Zealand being the highest source of tourist arrivals since 2003, followed by American Samoa as the second highest source market. Growth of tourist arrivals is also evident in the Australia, European and Asian markets (Samoa Travel 2009).
Today, Samoa ranks as one of the top-order South Pacific destinations along with the regional countries of Fiji and French Polynesia (Samoa Travel 2009). The Tourism Development Plan (TDP) 2009 – 2013 reported that tourism contributed 10% (STS106.0 million) of Gross Domestic Product (GDP) in 2008.

In the Samoan context, tourism is the major commercial economic activity and largest source of foreign exchange in the country. It is likely that the tourism industry will continue to be an important aspect of socio-economic development in the country for many years to come despite the phenomenal tsunami that caused substantial damage to the tourism industry in 2009. Overall, the style of tourism development in Samoa (example; accommodation sector, inbound tour operations, transport operations and food and beverage sectors) with the exception of the major carrier seems to be predominantly small-scale and locally managed, owned and operated by the local people (Scheyvens 2005, Twining-Ward 2002).
The Samoa Tourism Authority (STA), formerly known as the Samoa Visitors Bureau (SVB) is the national tourism organisation and plays the key role in planning, development and management of Samoa’s tourism industry. The planning, development and management of tourism activities in Samoa is guided by the structural framework shown in Figure 4. As observed in the recent Tourism Development Plan (TDP) 2009-2013, the STA plays a major responsibility in the marketing Samoa as a tourist destination nationally and internationally. This is executed in collaboration with a diverse range of representatives across the tourism industry and country-wide ranging from village communities, youth groups, church members, education providers, health services, non government organisations to government agencies. This integrative and collaborative approach is made possible and easy to complete because of the significant underlying value system of the fa’aSamoa.
Figure 4: Samoa Tourism Industry Structural Framework

(Source: Tourism Development Plan (TDP) 2009-2013)

Samoa shares many common issues and challenges with other Pacific islands and small island states elsewhere with regard to tourism development (see Chapter 2, Sections 2.3 and 2.5). Some of the noticeable challenges are the land use tenure system where 80% of the land is customary owned by extended families under customary ownership, and the alienation of customary land is prohibited by law. Customary land cannot be transferred or made freehold although lease arrangements are possible (Pearce 2000, Twining-Ward 2005).

Because of this, tourism investors are required to take up the customary lands on long term leases of up to approximately 90 years; however these leases cannot be used to secure financing from financial institutions (The Enterprise Research Institute-TERI 2003). Other problems faced by the tourism industry is the isolation from major sources of tourist markets causing relatively expensive and time consuming travel for tourists.
As a result, Samoa is one of the places that very few tourists visit during their holidays. Infrastructural developments (such as water and power supply) have also become a common problem faced by many tourism facilities around the country (SPT 2003). The tourism operators, as reported by TERI (2003), complained about the very unreliable supply of both water and electricity. This requires them to install backup systems, thereby adding to the capital requirements and operating costs of tourism developments (TERI 2003).

1.3.3. Overview of the study area - Safata district

Safata district is located on the south west coast of the main island of Upolu in Samoa (Figure 5). It consists of nine villages mostly less densely populated than urban areas. The district is well known in the history of tourism development in Samoa both locally and internationally (Samoa Travel 2009) as it contains a wide variety of tourism facilities ranging from small-scale accommodation fales (houses) to medium scale establishments. Tourism businesses around the Safata district are predominantly owned and managed by local people and nearly 98% of employment are of village people (Samoa Travel 2009). The geographical features make the district a popular tourist destination for a variety of nature-based tourism activities such as surfing, snorkeling, diving and nature walks around mangrove forests.

Figure 5: Map of Safata district
(Source: MNRE website)
In addition, events offered by most tourism businesses in the studied area include mountain climbing, snorkelling, kayaking, hiking and touring around the community and participating in village activities. Safata holds the biggest marine protected area (MPA) in Samoa, the mangrove conservation forest (MNRE 2003). The MPA has become an increasingly popular site for nature-based tourism activities such as canoeing, trail walking and mangrove tours as well as educational activities such as school field trips and research activities.

1.3.4. Overview of the 2009 tsunami impact on tourism

In the early morning of 29 September 2009, a tsunami wave generated by an 8.3 magnitude earthquake struck the shores of the southern coastal areas of the Samoan islands. Much of the devastating impact of the tsunami was reported in the south coastal areas of Samoa with a large number of people losing loved ones. Many were made homeless and the psychological trauma of the tsunami continues to trigger fears and nightmares, especially for those directly affected. Properties were destroyed and tourism businesses were severely damaged causing a dramatic drop in income. An early assessment after the tsunami reported a total toll of 143 deaths, 5 of which are tourists (UNDP 2009), 310 injured, 3,200 homeless and 6 still missing (OCHA 2009).

According to the Early Recovery Framework (ERF, 2009), a total number of 20 villages were affected as illustrated in Figure 6. Tourism businesses involved in this research are located in the villages of Siumu and Maninoa in zone 3. Several other affected tourism businesses (mostly beach fales) located in zone 1 were completely demolished, causing huge damage to livelihoods and social welfare. Tourism businesses in the affected areas accounted for an estimated total of 20% hotel room capacity (MOF et al 2009). This implies a great need for recovery and rehabilitation of this sector. Although no hard data on employment in the affected tourism businesses is available, it is assumed that approximately between 300 and 400 people who have been employed in the tourism resorts and businesses, have lost their jobs.
The total damage and loss caused by the tsunami is presented in Figure 7 by sector (see also Figures 8 – 12). It illustrates that the tourism sector suffered the most in terms of loss while transport accounted for most damage (MOF et al 2009).
According to the reports, the overall damage and loss caused to individual, community and government infrastructure was estimated to be SAT $162 million (US $65 million) and economic loss at approximately SAT $97 million (US $39 million) making a total loss of SAT $260 million (US $104 million) (ERF 2009). Furthermore, there was an imbalance of payments due to the revenue lost from reduced tourists arrivals who were expected to have stayed at affected tourism sites.

1.4. Thesis Structure

This thesis is structured into seven chapters. Chapter one presents the research context, background of the research and aim and objectives. It also includes an overview of tourism development in Samoa as well as background information necessary for the reader to develop an understanding of the Safata district where the study is based.
Figure 8: Images taken two days after the tsunami

Satellite image of the study area before tsunami  Satellite image of the study area after tsunami

(Source: U.S. agency for International Development, September 30\textsuperscript{th} 2009)

Figure 9: Images of Tourism Business A two days after the tsunami

(Source: http://www.samoans.ws/tsunami/sinalei1.jpg)
Figure 10: Images of Tourism Business B two days after tsunami

(Source: [www.samoans.ws/tsunami.html](http://www.samoans.ws/tsunami.html))

Figure 11: Images of Tourism Business C two days after tsunami

Chapter two provides a review of the literature regarding aspects of global and island tourism and disaster. Discussion of global tourism focuses on the evolutionary growth of tourism development ranging from mass tourism to alternative tourism to sustainable tourism. The chapter then goes on to discuss small island tourism followed by disaster plan in Samoa.

Chapter three discusses definitions of disasters and natural disasters highlighting their classification and causes of disasters. This chapter also includes a discussion of tourism and natural disaster planning processes.

Chapter four describes the methodology, research design and research methods used for data collection, description, analysis and presentation. This research used qualitative methods of semi-structured interviews and site observations. Media reports from the internet and local newspapers assisted with building a picture of the tsunami impacts in Samoa. Background information of research participants is also included as well as background information of tourism sites and relevant organisations involved in the study.
In chapter five, the results and findings of the research are presented and described. Results are presented according to the sequencing of questions during the interviews. Interview results are divided into two subgroups of tourism businesses and relevant organisations.

Chapter six discusses the key themes emerging from the research with particular reference to Samoa and cross references them to information in the literature review. It also includes recommendations that aim to be of use for the tourism industry in Samoa as a whole.

The last chapter concludes the thesis by highlighting the overall summary of the research, the main contribution of this research along with recommendations for future research. This chapter explains the threats of tsunami on tourism’s potential survival as well as developing effective preparedness programs and mitigation for future disasters that are suitable to the nature of tourism operation and available resources.

1.5. Summary

This chapter has provided the reader with background information for the research topic, aim and objectives. It also provided useful insights into understanding the significant relationship between tourism and disaster planning in Samoa. It has highlighted the scope of the research by describing the context and general area of interest. The significance of the study was also pointed out together with an overview of the study area and aspects related to the study.

The following chapter seeks to provide a review of the current literature on the aspects attributed to the current research. It looks at the evolutionary growth of tourism in terms of development and interpretation. It is followed by a discussion of small island tourism and their perspectives of natural disasters. The chapter then looks at the classification of disasters before concluding with a discussion on natural disaster planning processes.
Chapter II: Global and Island Tourism

2.1 Introduction

This chapter comprises a review of the current literature that explains and discusses varying aspects of tourism development from the global, regional and national perspectives. It begins with reviewing the literature on the evolution of global tourism development and interpretation ranging from mass tourism, alternative tourism to sustainable tourism. This chapter also explains aspects of tourism development from the small island nations’ perspective in relation to development scope, benefits of tourism for small islands, problems that hinder tourism development and finally provides a background overview of tourism and disaster planning in Samoa and small islands.

Tourism is regarded as one of the most important economic developments for many countries and many countries, especially in the less developed nations such as in the South Pacific region, are heavily dependent upon tourism for their growth and survival (Ritchie 2004, Pelling et al 2001). At the same time, the tourism industry has a great exposure to global crisis, terrorism and disasters (Specht 2006, Faulkner 2001) as they are often closely attached to exotic destinations and scenery and so possess high risk. For instance, skiing exposes tourists to the potential risk of avalanches and tropical beaches can expose tourists to hurricanes and tsunamis. As well as the tourism industry, tourists are often more “vulnerable than locals in disaster situations because they are less familiar with local hazards, local geography or culture and the resources that can be relied on to avoid risk” (Faulkner 2001, p 142) and/or may not speak the languages in which hazard information is communicated. A lack of proper disaster plans, absence of warning systems, insufficient information provided on safety procedures for staff and visitors and a lack of risk management plans in place could cause this to happen.
2.2 Global Tourism

Tourism over the past decades has grown tremendously worldwide both in economic and development terms. The World Tourism Organisation (WTO, 2009) reports that international tourist arrivals in 2008 reached 922 million and generated US$ 944 billion. By 2020, international tourist arrivals are expected to reach 1.6 billion generating triple the tourist receipts in 2008 (WTO 2009). The share in international tourist arrivals by developing countries over the past six decades has increased from 31% in 1990 to 45% in 2008 (WTO 2009). Tourism for many developing countries is one of the main income sources and the number one foreign exchange earner, creating employment opportunities both directly and indirectly (Craigwell 2007, Burns 2005).

As the economic importance of tourism has grown worldwide, so have the concerns about managing its impacts on many destinations worldwide especially in developing countries that have limited natural resources, such as in Samoa (Burns 2005). Tourism, if properly planned and managed, can provide sustainable economic benefits for the country, however, if it is left to grow in an uncontrolled fashion, it can generate undesirable impacts on the environment, culture and society of the destination (Liu 2003).

The historical background of tourism can be traced back hundreds of years (Hunt & Layne 1991) over the time when countries began developing recreational services and facilities and travelers have become experienced and technologies advanced in providing fast means of travel (Weaver & Lawton 2002). During the early years of the 13\textsuperscript{th} century, people travelled for the main purposes of business, religious pilgrimages or to avoid or fight wars and very little was related to pleasure (Weaver et al. 2002).

In the 17\textsuperscript{th} century, the ‘grand tour’ was first developed in England and was treated as an educational activity and prestigious experience for mostly young wealthy gentlemen and the elites (Farrell & Twining-Ward 2004). These tours were predominantly undertaken to capitals of Europe to explore and learn cultural aspects of the places visited, including
their artifacts and architectural designs of earlier medieval times (Hunt et al 1991). During this time, Industrial Revolution was taking place which resulted in huge economic and social changes in the European and British sphere (Weaver et al 2000). A complete alteration of lifestyles and patterns of life (not only for the upper classes and elites but a larger proportion of societies) was also evident during this time such as increased discretionary incomes, less working hours and more affordable weekends to take holidays away from normal residence (Hunt et al 1991, Farrell & Twining-Ward 2004). It was from about the middle of the 18th century that there were great changes in tourism development and the birth of mass international tourism (Inglis, 2000).

One of the early definitions of tourism and most commonly cited in the literature is that;


An overview of the evolutionary growth of tourism development is outlined below in Table 1.

2.2.1. **Mass Tourism**

During the 1950s to the late 1970s, the boom of mass tourism took place. Global tourism evolved from commercialisation of air travel (Theobald 1994) that has resulted in a significant reduction in air-fares and mass production of tourism activities (Weaver 1991, McCool & Moisey 2008). Many countries launched and developed their tourism industry considering it a ‘smokeless industry’ with less negatives and more positives (Swarbrooke 1999, Theobald 1994, Mathieson et al 1982). Tourism was promoted as a soft option and panacea with few negative impacts with the belief that “tourists take nothing but photographs and leave nothing but footprints” (Butler 1990, p 40). It was
Table 1: The Trend and Growth of Tourism Development

<table>
<thead>
<tr>
<th>Time</th>
<th>Development</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500 – 1800</td>
<td>Grand tour/Spa tourism</td>
<td>Era of educational and health tourism by wealthy elites</td>
</tr>
<tr>
<td>1800 – 1930</td>
<td>Railway and Steamer Tourism</td>
<td>First packaged tours developed by Thomas Cook</td>
</tr>
<tr>
<td>1930 – 1950</td>
<td>Seaside Tourism</td>
<td>Seaside weekends became popular</td>
</tr>
<tr>
<td>1950 -</td>
<td>Mass Tourism</td>
<td>Rapid development of travel and transport technology made tourism more accessible to large numbers of people.</td>
</tr>
<tr>
<td>1980 -</td>
<td>Alternative forms of Tourism</td>
<td>Shift of holiday preference to less consumptive products; birth of adventure tourism, ecotourism, cultural tourism and nature tourism.</td>
</tr>
<tr>
<td>1990 -</td>
<td>Sustainable Tourism</td>
<td>Attempt to make all kinds and types of tourism more sustainable.</td>
</tr>
</tbody>
</table>

(Source: Adapted from Twining-Ward 2005)

also seen as a valuable source of moving foreign exchange from wealthy developed countries to less fortunate developing countries to build their economies (Burns 2005) and repay international debts with relatively little capital investment compared to, for example, manufacturing (Harrison 2004). Regions in most developing countries saw these economic benefits and were urged to continue developing tourism and market it using aggressive tools (Craigwell 2007). Tourism was praised as a way of helping developing countries by bringing foreign exchange earnings, providing more economic development opportunities, and stimulating local production of tourism services (Weaver 1991). As a result some developing countries such as Philippines and Indonesia offered attractive incentives for foreign investors and multinational hotels (Craigwell 2007).

As the benefits of tourism continue to grow, so are signs of negative impacts on the environment and social structures of destinations all over the world (Archer & Cooper
According to Britton (1982, 333), mass tourism was designed “to meet the economic and political requirements of the colonial powers” instead of benefiting tourist destinations. Tourism was also critically viewed as widening the gap between rich and poor, increasing crime rates and disrupting traditional lifestyles (Farrell & Twining-Ward 2004). Furthermore, Hall (2000) criticises the ‘demonstration effect’ of tourists’ cosmopolitan lifestyles on local residents’ cultural values and protocols.

There has also been evidence of negative impacts on the environment. Mathieson et al (1982) conducted an early yet comprehensive assessment of tourism impacts and found, as well as numerous positive impacts, tourism was also responsible for many environmental and social negative impacts. Some of the numerous impacts listed include vegetation destruction, deterioration of wildlife and natural habitats, crime, prostitution and gambling, forest clearing and land alteration, biodiversity loss, pollution of seas and waters and dumping of wastes on beaches (Mathieson et al. 1982, Hall 1998).

By the 1980s, many countries showed concerns about the unfavourable and undesirable signs of tourism on the social and environment aspects of their destinations. As explained by Weaver (1990, p 40) “in reality it has become increasingly apparent that tourism does cause problems of various levels and types of seriousness”. Consequently, people searched for alternative options of places to visit and things to do during their holidays. There was a shift of tourists’ holiday preferences from more exotic and often luxurious places, to places of more pristine, natural areas that provide experiences within natural and cultural environments.

### 2.2.2. Alternative Tourism

Alternative tourism emerged in the 1980s as a considerable response to the perceived costs of mass tourism. According to Macleod (1994, p 152)

> concerned alternative tourism … is in essence a reaction to the exploitation of the Third World, in which the notion of ‘just’ tourism arises, furthering
mutual understanding, preventing environmental and cultural degradation and exploitation.

Alternative tourism suffered a definitional problem since its inception as there was no general consensus amongst academics and researchers in the tourism literature of what constituted alternative tourism or its precise nature (Macleod 1994). Therefore the term is used as a synonym to nature tourism, responsible tourism, educational tourism, cultural tourism, soft tourism and ecotourism (Pickering & Weaver 2003). An early attempt in describing alternative tourism offered by Hitchcock (1993b cited in Macleod 1994) suggests that the purest form of alternative tourism is underpinned by a number of principles;

- It should be built on dialogue with local people who ought to be aware of its effects and have political weight concerning the matter.
- It should be established on sound environmental principles, sensitive to local culture and religious tradition.
- It should be a means of giving the poor a reasonable and more equal share in the gains.
- The scale of tourism should be tailored to match the capacity of the local area to cope, measured in aesthetic and ecological terms.

Similar characteristics of alternative tourism are identified by a number of scholars (Krippendorf 1987, Butler 1990, Macleod 1994). For instance, Krippendorf (1987, p 124) describes alternative tourism tourists as “those who try to establish more contact with the local population, try to do without the tourist infrastructure and use the same accommodation and transport facilities as the natives”. On a similar note, Butler (1990) describes the ‘exploration and involvement’ stages of his destination cycle model by low visitation levels, low impact, local ownership and other traits that are characteristic of alternative tourism.

From observation of these perspectives, alternative tourism is perceived as a type of tourism that is predominantly small scale, encourages brief contacts with local people,
involves local participation and involvement, preserves the natural environment, and treats the local culture with respect and one that benefits the local people.

As well as the praises and positive views about alternative tourism, it has also been the subject of criticisms (Macleod 1994, Butler 1990, Weaver 1991). For instance, Cohen (1987 cited in Macleod 1994, p 152) “has powerfully criticised the supposition that alternative tourism can ultimately lead to a transformation of tourism and is suspicious of the benefits that it brings”. In a similar vein, Butler (1990) argues that alternative tourism may lead to mass tourism development exposing sensitive and vulnerable destinations to the developments of mass tourism. Furthermore, Weaver (1991) questions the characteristics of alternative tourism as the destination moves away from the ‘exploration and involvement’ phases of Butler’s destination cycle. He argues that as the destination becomes more popular and attracts increasing amounts of capital, a transformation to mass tourism begins. The notion of alternative tourism is somewhat misleading in these instances as that type of activity is not deliberately cultivated as an alternative to conventional mass tourism, but exists as its prelude (Weaver 1991, p 416).

At this point, it is fair to say that even though alternative tourism has contained some useful discussion and considerable options in resolving tourism impacts, it has done little to address the overall critical problems of mass tourism.

2.2.3. Sustainable Tourism

Sustainable tourism evolved from the mother concept of sustainable development (SD). The concept of SD came from the realisation of environmentalism and conservatism (Yunis 2003, Bramwell & Lane 1999). The concept sustainable development was first used by environmentalists who assessed the associated problems with looking after ecosystems and identified that problems are connected to the large poor populations living in and around areas of environmental concerns (Schneider 2006). The interaction
amongst the environment, development, sustainability of community and linkage of human to environmental sustainability “has led environmentalists to identify the concept of sustainable development as the vital centre where everything intersects” (Schneider 2006, p 68). There were growing concerns of uncertainty and risk about the unfavourable impacts of a range of human activities that caused major global environmental changes which had not been predicted by scientists (Clarke 1997, Liu 2003, Wood 2007, Hardy, Beeton & Pearson 2002).

The idea of SD first appeared, though not strongly, in 1980 by the International Union for Conservation of Nature and Natural Resources (IUCN) in its report ‘World Conservation Strategy’ to link the environment with economic development (Liu 2003, Hardy et al 2002). However, it was the World Commission on Environment and Development’s report ‘Our Common Future’ in 1987 that brought sustainable development further into strong international recognition with the first official definition of sustainable development as;

\[
\text{development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Liu 2003, p 460, Weaver 2006, p 10, Hardy et al. 2002, p 480).}
\]

And in 1992, the United Nations Conference on Environmental and Development in Rio de Janeiro signified to some extent the growing global acceptance of sustainable development as a goal. The notion of sustainable development supports development which provides improvement to the quality of human life and at the same time conserves the vitality and diversity of the earth for future generations (Leung, Marion & Farrell 2008). Sustainable tourism in the same way advocates tourist development whilst still maintaining the natural, social and economic environments on which it depends (Mitchell 2008).

In response to the global adoption of sustainable development, the World Travel and Tourism Council (WTTC) in collaboration with the World Tourism Organisation

meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential processes, biological diversity and life support systems.

Sustainable tourism development (STD) has been regarded as holding considerable promise as a means of addressing the problems of negative tourism impacts and maximising the benefits (Liu 2003). According to Bramwell (1993 cited in Liu 2003), STD addresses problems created from the conflicting interests amongst the tourism industry, tourists, the environment and host community. McIntyre (1993 cited in Mitchell 2008, p 159) praises STD as a type of development that connects tourists and providers of tourist facilities and services with advocates of environmental protection and community residents and their leaders who desire a better quality of life.

Whilst some scholars have been enthusiastic about STD, it is also worth mentioning that there have been a number of skeptical observers who question whether STD is actually feasible in practice (McCool et al 2008). For example Wood (2007) questions whether STD is an achievable goal since the local environment is often exploited with local communities often being used and not receiving equal benefits from tourism. Mowforth and Munt (1998 cited in Mitchell 2008, p 159) also contended that “sustainability is a
contested concept, one that is socially constructed and reflects the interests of those involved”.

In the same vein, it is argued here that the principles of STD are easy to understand, however in practice it is difficult to achieve because it is very broad and complex. Meeting the needs of tourists might be difficult as the needs of tourists are different than those of local residents, thus in order to meet the demands of tourists, the local ability may be stretched beyond limits (Jamrozy 2008). The success and failure of STD depends upon several elements. These elements include the commitment of tourism development stakeholders in planning and development of tourism activities in a more coordinated and controlled manner (Jamrozy 2008, Cochrane 2007).

Tourism development must aim to provide benefits to not only visitors but the environment and host society (Weaver et al 1999) by encouraging local governance and indigenous participation. The focus of sustainability should be practical, viable and desirable in the context of the communities involved towards planning and managing tourism in a way that meets present needs without compromising the ability of future generations to meet their own needs (Pineda & Brebbia 2008, Swarbrooke 1999, McCool et al 2008). Overall, it implies a balanced mix of coordination, utilisation and organisation of tourism resources in a sustainable manner (Murphy 1994)

2.3. Island Tourism

Many islands in the South Pacific region and small island developing states have found the tourism industry to be the most viable option for the sustainable economic and social development of their countries (Meheux et al 2007). While some are developing the tourism industry as their major economic sector, others are using it to compensate for other eroding economic activities such as agriculture and fisheries (Allcock 2006). Tourism makes a significant contribution to most Pacific economies and employment, thus many governments formulate deliberate development policies that promote socio-economic prosperity based on the opportunities provided by the tourism industry
This is particularly true for developing countries such as the Cook Islands, Tonga and Samoa whose limited natural resource bases generate a dependency on the services sector for economic stability and finance generation (Harrison 2004).

Pacific islands and many other small islands, particularly those in the tropics, rely heavily upon the natural resources of sea, sun and sand as the attractions upon which their tourism industries are based. In addition, Pacific islands contain common natural features such as biological diversity, landscape, marine biodiversity and habitat (Sesega 2001). However, these countries contain cultural aspects that are relatively different from each other. For instance, on one hand, residents of Tonga lack ownership rights for land which are solely owned and controlled by the King. On the other hand, Samoan people possess equal rights to own lands where 80% are customary owned by members of the extended families which the government has little control over (Twining-Ward 2005). These differing land rights thus have implications for tourism development.

The benefits of tourism for many Pacific islands extend well beyond its direct economic contribution (Sesega 2001). For instance, it provides employment opportunities through both direct and indirect avenues, supports facilities and services for local communities, develops local skills and encourages the preservation and conservation of cultural and natural resources. In addition, tourism within communities contributes to building domestic capacity and economic diversification which can allow for the substitution of import goods and even, to certain extent, generate exportation of goods (Craigwell 2007). This underlines the importance of commitment by the local community in developing and managing tourism for their own benefits (Craigwell 2007).

Tourism development, the fastest growing industry in many small island states has not been without difficulties (South Pacific Travel 2008). The constraints to tourism development in the Pacific islands have been discussed at length by several authors (Harrison 2004, Allcock 2006, South Pacific Travel 2008). These include limited natural resources, small size, poor accessibility and inadequate air links, especially where the domestic market is small or non-existence (Nemeth & Cronin 2009). Pacific
islands also lack skilled personnel and local capital and mostly comprise of hotel operations that are relatively small in scale. As a consequence, most islands rely heavily on international capital (Harrison 2004).

Another constraint is political unrest and domestic unrest that can create stress and conflict amongst tourism stakeholders and communities. For instance, coups in Fiji and inter-ethnic conflict in Papua New Guinea and the Solomon Islands have disrupted the image of these countries as safe destinations which has greatly affected the tourist/customer confidence to visit these countries (Craigwell 2007). In addition, numerous cases of unwisely managed developments have created long-term negative effects on the people and the environment, consequently impacting on the economy and the livelihood (Harrison 2004).

2.4 Samoa Tourism and Disaster Plan

Like in many countries worldwide especially in SIDS, tourism has become the fastest growing economic sector in Samoa and a valuable option for socioeconomic development creating much needed employment and opportunities for local development in the country (Twining-Ward 2005). However, alongside to these benefits, the government of Samoa and national tourism organisation accept that while tourism can provide economic benefits and opportunities for the people of Samoa, it can also generate undesirable and irreversible environmental, economic and social changes (Craigwell 2007). The objectives of the STD 2009 – 2013 recognised that tourism-specific adaptation, mitigation measures and remedial actions are significant requirements of the Tourism Development Plan to sustain both the tourism industry and the resources on which it depends (TDP 2009 – 2013).

Situated on the seismically active Pacific Ocean, Samoa is one of the most vulnerable areas in the Pacific by its small size, isolated nature, physical and geographical characteristics, limited disaster mitigation capability and narrow economic structure (Okal et al 2010). Natural disasters are often highly variable in their physical and spatial
characteristics (Okal et al. 2010). This variability and the complex nature of disasters explains why comprehensive planning that integrates strategies for risk reduction and disaster mitigation from the range of natural disasters are slow to develop for tourism in Samoa (see SPT 2007).

Despite the frequent occurrence of natural disasters in Samoa in the past years (see section 1.2 for further details), discussion of disaster as an integral component of the Samoa Tourism Plan is still very limited (STA 2009). In addition, there is no national structure in place in Samoa’s central tourism organisation (STA) for tourism disaster planning. However, the STA, in its Tourism Development Plan (TDP) 2009-2013 has incorporated a risk management matrix (see Table 2) that identifies key risks from the physical environmental (natural, climate and epidemic) with a summary evaluation, together with proposed strategies for possible action. The risks are identified and evaluated against two key criteria of ‘consequences’ and ‘likelihoods’ of risks. The key guide and description for each consequence and category for likelihood for risks is presented in Appendix 1.

This matrix will play an important role in providing guidelines for the development of disaster plans and preparedness programs for the tourism industry in Samoa. These strategies are important as they underline the fact that disaster planning cannot be too narrowly focused and needs to become an integral component of tourism development planning at both the national and community levels (Lyton & Worton 2007). Through this risk management, it is essential that the tourism operations, in collaboration with stakeholders, ensure that the well being, health and safety of visitors, employees, host communities and tourism businesses are well managed.
Table 2: Risks from the physical environment (natural, climatic, epidemic) for Samoan Tourism (see Appendix 1 for key description).

<table>
<thead>
<tr>
<th>The Risk What can happen?</th>
<th>Overall Risk Classification</th>
<th>Likelihood Rating (a)</th>
<th>Consequence Rating (b)</th>
<th>Overall Risk Level (a+b)</th>
<th>Tourism Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural disaster such as severe cyclone, tsunami, floods, earthquake, volcanic eruption.</td>
<td>Extreme</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>• Ensure accurate information is disclosed in all visitor information sources.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Develop disaster recovery action plan which ensures formal channels of communication are established between all relevant disaster management agencies. This must also ensure that correct and accurate information is being quickly communicated to visitors, trade and potential visitors.</td>
</tr>
<tr>
<td>Potential physical implications of climate change.</td>
<td>Extreme</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>• Ensure accurate identification of potential changes in physical environment and factor into planning and development decisions.</td>
</tr>
<tr>
<td>Potential market implications of climate change, particularly from growing concerns regarding long haul aviation emissions.</td>
<td>Extreme</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>• Ensure Samoa is positioned as having adopted principles of sustainability and as an eco efficient destination.</td>
</tr>
<tr>
<td>Severe disease epidemic e.g. SARS, Avian bird flu.</td>
<td>High</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>• Ensure accurate identification of potential changes in physical environment and factor into planning and development decisions.</td>
</tr>
<tr>
<td>Moderate disease epidemic e.g. dengue fever, typhoid, malaria.</td>
<td>High</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>• Ensure accurate identification of potential changes in physical environment and factor into planning and development decisions.</td>
</tr>
<tr>
<td>Damage to natural environment through insensitive development and uncontrolled or excessive loadings of visitors.</td>
<td>High</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>• Identify and ensure appropriate regulation and management of protected areas. • Adopt and apply principles of sustainability throughout the tourism sector.</td>
</tr>
</tbody>
</table>

(Source: Adapted from STDP 2009 – 2013)

The plan also indicates major efforts in indicating local issues (economically, socially and environmentally) and characteristics upon which disaster planning can be based, such as planning and implementing tourism risk management strategies to “ensure best protection of the well being, health and safety of visitors, tourism businesses, workers and host communities” (TDP 2009 -2013, p 78) as a way of protecting and preserving Samoa’s reputation as an appealing tourist destination (TDP 2009-2013). Furthermore, the risk matrix can be utilised to describe the relationship between disaster planning and tourism development in relation to disaster response strategy for future disasters and
longer-term sustainable development. Through proper evaluation and application of this matrix, it is believed that the affected tourism businesses should be able to strengthen their capacity to response and to cope with extreme events in the future as will be further discussed in section 6.5 and section 7.3.

2.5. **Island Tourism and Disaster Planning**

The Pacific region is subject to a range of natural disasters such as earthquakes, tsunamis and volcanic eruptions. Any of these events could have long-lasting negative impacts on the host society, the tourism industry and tourists, as well as having wider social and economic consequences. Meheux et al (2004) in their study of natural hazards in Small Island developing states (SIDS) find that SIDS have some of the highest exposure levels to natural hazards globally. They also report that at least 13 of the 25 most disaster-prone countries are SIDS. This is because most SIDS are highly vulnerable to the impacts of climate change and comprise “small land masses surrounded by ocean and frequently located in regions prone to natural disasters, often of a hydrometerological and geological nature” (Mimura et al 2007, p 691).

In addition SIDS are heavily influenced by isolation which in a disaster situation can influence the time it takes for humanitarian assistance to arrive (Harrison 2004). Also the small physical size of many SIDS can result in a high proportional impact where one tropical cyclone can affect a whole island group (Meheux et al 2006). However, these authors noted that literature on disaster management in tourism is largely restricted to studies of larger, more developed nations than SIDS (Harrison 2004, Meheux et al 2006, Mimura et al 2007).

Recent examples of the damage natural disasters can inflict on tourism in Pacific islands and SIDS include both a tsunami in 1999 and an earthquake of 7.2 magnitudes in 2001 affecting Vanuatu which prompted the number of international visitors to the island to fall by 15% (Meheux et al 2006). In 2004 following the Indian Ocean tsunami, the local tourism industries in countries such as Maldives, India and Thailand reported a business
decline range from 25% to 40% up to 6 months after the tsunami (Rice & Haynes 2005). Following the military coup in 2006, tourist arrivals in Fiji dropped to 40% up to four months after the coup (Mimura et al 2007). An extreme case occurred in Samoa where the 2009 tsunami resulted in the severe destruction of tourism businesses on the south coast of Samoa (UNDP 2009, Samoa Observer 2009).

This current research has demonstrated a very low potential for discovering disaster preparedness programmes or planning for Samoa’s tourism industry prior to the tsunami. This is similar to the case of the Indian Ocean Tsunami in 2004 that showed evidence of limited mitigation strategies, plans and disaster preparedness programmes developed by governments and tourism industries of the affected nations before the tsunami (Henderson 2005, Cheung et al 2006).

However, there is evidence that the South Pacific Travel (SPT), formerly known as South Pacific Tourism Organisation had developed a Strategy Action Plan (SAP) for ‘green tourism’ with the purpose of helping Pacific islands’ tourism development and risk management before the tsunami struck. Green tourism is defined by the (TRIP 2007, p 3) as “environmentally sustainable travel to destinations where the flora, fauna and cultural heritage are the primary attractions and where climate impacts are minimised”. The primary objective of the SAP is to assist the tourism sectors in the pacific region to understand and respond to the impacts of climate change as an effort towards reducing risks and preparing for future disasters (TRIP 2007). The development of the SAP emphasise the importance of how to become aware of climate change and its consequences of causing natural disasters in the Pacific region.

The complex relationship between tourism and disaster because of environmental and climate change is illustrated in Figure 13 by the TRIP (2007). The framework is essential for understanding the inter-connectivity perceived between climate change and the consequences of climate change on potential tourism development. Furthermore, tourism planners and managers could find the framework useful to evaluate the type of
risks and to be able to differentiate between acceptable and unacceptable risks. Such evaluation would facilitate the prioritisation of strategic action in the face of disaster.

**Figure 13: Framework for Analysis of Tourism and Climate Change**

The SAP for green tourism is guided by three key strategies and specific action points for each strategy as presented below (TRIP 2007):

- **Strategy one – Communications and Engagement**
  Develop a regional position on tourism and climate change and implement a coordinated communications plan to inform, educate and engage stakeholders. At the national level, Samoa’s national tourism organisation considered the tsunami as the opportunity to address the urgent need to promote a better understanding of disaster prevention and mitigation through proper dissemination of up-to-date information related to risk assessment, prediction, prevention and mitigation of natural disaster across the tourism industry.
• **Strategy two – Mitigation**

Coordinate and promote initiatives across the four areas of energy conservation, energy efficiency, renewable energy and carbon offsetting. As explained by one of the organisation’s participant for this study, the tourism hotel association are promoting the use of environmental friendly ways of providing and managing hotel services such as natural air ventilation (where necessary) and solar systems to reduce power consumption.

• **Strategy three – Adaptation**

Communicate the risks that tourism faces because of climate change and support sustainable adaptation measures. In this respect, recovery of tourism from the tsunami requires coordination amongst the stakeholders in developing and implementing a disaster plan. This can be done by promoting programmes of technical assistance, demonstrating projects on safety and risk reduction and providing training regarding specific hazards and possible ways to avoid or cope with them (see Chapter 6, Section 6.5 for further discussion).

2.6. **Summary**

This chapter provides a detail description of the growth and trend of tourism development from the global and regional perspectives. This shows that tourism has changed over time, is still changing and will continue to change in terms of development and interpretation. While this continual growth is recognised, so have the concerns about the challenges that affect the potential survival of tourism. One of these challenges, as discussed in the next and later chapters, is the occurrence of disasters, especially those that happen without any warning. The next chapter goes on to discuss the concept of disaster and this notion of ‘disaster’ is reviewed and discussed with emphasis on the varying concepts, issues and interpretations surrounding the term.
Chapter III: Natural Disaster Planning

3.1. Introduction

This chapter focuses on defining disaster with an emphasis on differentiating the term from other related notions of vulnerability, crisis and risk. It also discusses natural disasters and their potential negative impact upon people and tourism properties. Natural disasters can cause damage to buildings and infrastructure, cause injury and loss of human life, cause damage to natural resources and impact the local economy. The chapter goes on to discuss disaster planning and places emphasis on explaining actions taken before a disaster event occurs, to planning when a disaster happens to planning how tourism responds during and after the disaster. This chapter broadly discusses disaster plan which will help direct the discussion of results for this study in chapter 5 and 6 within the Samoan context.

3.2. Disaster Perspective

Over the past decades, the phenomenon of ‘disaster management’ has emerged as a global concern (Sharpley 2005). Even more recently, disaster has become one of the significant areas of study and research in fields of tourism planning, development and management (Pelling 2003). In a general sense, the two concepts of ‘disaster’ and ‘tourism’ do not usually associate together (Murphy 1989). The former equates with experiences of risk, crisis and dangerous events that lead to devastating effects, whereas the latter associates with experience of recreation and entertainment that can lead to enjoyable results. However research shows that tourism has ‘no-escape’ from disasters, as it is one of the most vulnerable and risk-prone industries to disasters nowadays (Sharpley 2005, Faulkner 2001, Ritchie 2008). As supported by Adger & Brooks (2003, p 19):

"disasters in different and varied forms have been felt worldwide since the beginning of history but … the wake of economic, social and environmental
globalisation … makes us more aware of the impacts of natural hazards and our perceptions or risk from them cannot be divorced from its social settings.

With the limited knowledge and background of this researcher on the study of ‘disaster’ in relation to tourism, it is vital at this point to say that studying disaster alongside tourism in this research has been challenging although interesting. Therefore, the next sections of this study are as reference for future research, if not a comprehensive review on its own.

3.2.1. **Defining Disaster**

The concept ‘disaster’ is a very complex and complicated phenomena and broad in scope. Hence, the term cannot be explained by definition (Dore & Etkin 2003), even an attempt in this research would not fully discover the complexity surrounding the term. The concept integrates a wide range of approaches depending on its various interpretations and practice. In order to obtain an in-depth understanding of what ‘disaster’ is, it is vital to explore various approaches available in the current literature attributed to explaining the term (Dore et al 2003, Fordham 2003).

The etymology of the word ‘disaster’ is derived from the combination of two French words ‘des’ meaning ‘bad’ and ‘aster’ denoting ‘star’, forming a term ‘disaster’ meaning ‘bad or evil star’ (Fordham 2003). In modern writings and research, several academics, practitioners and organisations have attempted to define ‘disaster’ in relation to their respective purpose and interest. For instance, the United Nations International Strategy for Disaster Reduction (UNISDR 2009, p 9) recognises ‘disaster’ as;

a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.
In a similar vein, Specht (2006, p 124) describes disaster as;

a serious disruption of societal or community function where losses (human, economic, material, or environmental) are substantial, and where the ability of the enterprise (country or region) to cope is a critical distinguishing feature.

Perhaps the most commonly cited definition with a collective meaning is that;

disaster is a situation or event which overwhelms local capacity, necessitating a request to a national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering (Center for Research on the Epidemiology of Disasters-CRED 2008, p 3).

Alongside this definition, the CRED has developed a set of criteria in order for a disaster to be entered into the International Disasters Database (EM-DAT) as:

- 10 or more people reported killed
- 100 people reported affected
- Declaration of a state of emergency; and
- A call for international assistance (CRED 2008).

3.2.2. Crisis and Disasters Characteristics

Whilst some explains disaster as sharing common features with crisis (Ritchie 2004, 2008). Others (Faulkner 2001, Prideaux 2003) contend that disasters are quite different from crisis. Faulkner (2001, p 136) describes crisis as a “situation where the root cause of an event is, to some extent, self-inflicted through such problems as inept management structures and practices or a failure to adapt to change”. Disaster on the other hand;
refers to situations where an enterprise (or collection of enterprises in the case of a tourist destination) is confronted with sudden unpredictable a catastrophic change over which it has little control (Faulkner 2001, p 136).

Ritchie (2008) interprets these definitions and suggests that crises can therefore be predicted and can happen inside an organisation and that organisation managers can have control whereas disasters are more unpredictable and external. In a similar vein, Prideaux et al (2003, p 478) explain that “disasters can be described as unpredictable catastrophic change that can normally only be responded to after the event, either by deploying contingency plans already in place or through reactive response”. From an emergency planning perspective, Hills (1998, p 167) says that “disasters are sudden and overwhelming events which occur for a limited duration in a distinct location, and crises can be caused by predictable events”.

Overall, from an individual perspective, regardless of the distinctive features between crisis and disaster, it is apparent that both terms are complementary as they both can threatened the safety of tourists, host communities, organisations and the tourism industry. For instance, both disaster and crisis can, to some degree, cause impacts on destinations, organisations, governments, businesses and individuals and there is always a need to respond accordingly. Disasters encountered by tourists and tourist destinations are varied both in type and scale and different countries and tourism businesses cope with the impacts differently based on the strategies and disaster management plans in place (Henderson 2007).

It appears from the above definitions that crisis can be expected while disasters are sudden and unexpected. The definitions also recognise the importance of understanding what could be labeled as crisis and what could be seen as disasters particularly the essence of knowing how to act in response to the impacts caused by these events at the local, national or regional levels (Faulkner 2001, Xu & Grunewald 2009). To become more clear of the distinction between ‘crisis’ and ‘disasters’, Moreira (2007) outlines several criteria that differentiate the two terms (see Table 3).
Table 3: Crises versus Disasters: Differentiating Criteria

<table>
<thead>
<tr>
<th>Differentiating Criteria</th>
<th>Crises</th>
<th>Disasters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominant origin of the initial events</td>
<td>Internal</td>
<td>External</td>
</tr>
<tr>
<td>Frequency of occurrence</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Events timeline</td>
<td>Prolonged</td>
<td>Brief</td>
</tr>
<tr>
<td>Forecast potential</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Degree of control over the evolution of the events</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Reaction time frame</td>
<td>Preceded by a period that allows decision and action</td>
<td>Immediate before or only after the initial events</td>
</tr>
<tr>
<td>Impacts and consequences</td>
<td>Lower</td>
<td>Higher</td>
</tr>
</tbody>
</table>

(Source: adapted from Moreira 2007)

3.2.3. What Causes Disasters

By looking at the aforementioned definitions, the question still remains ‘what exactly causes disasters? And how and why do disasters occur? In searching for answers, Faulkner (2001) pointed out that a disaster is caused from the combination of hazard, vulnerability and insufficient capacity or measures to reduce the potential chances of risk. Pelling (2003) explains that hazard is a dangerous event that can potentially cause damage to social, physical and environmental aspects of a community and disaster refers to its actual occurrence (Cioccio & Michael 2007). Hazards are grouped into broad categories of man-made and natural. Examples of a natural hazard could be an earthquake, tsunami, flood and cyclone; man-made hazards could be the BP oil leakage and spill around the Mexico gulf (at the time of writing this thesis) causing huge damage to the vegetation and killing of marine habitats around the Mexico coastal areas (TVNZ, 2010). In its broadest sense, vulnerability refers to the ability of the individual or society affected by the hazard to cope using their own resources. Risk can be simply expressed as the chance or probability of actual danger (Cioccio & Michael 2007).
An increasing frequency of disasters has been noted by several authors (Faulkner 2001, Faulkner et al. 2001, Glaesser 2003, Sharpley 2005, Ritchie 2008). Some of the factors that contribute to the cause of these disasters are:

- **Global population growth** - causing over crowded cities and larger populated areas which become the ‘easy’ target of crisis events (Ritchie 2004). Also with larger populations, “more people become victims of disaster because there are more of them in dangerous places” (Faulkner 1999, p 10).

- **Urbanisation** – As more developments take place, urban planning in some countries, especially in developing countries such as Mali, tends to extend development into increasingly hazardous areas (Glaesser 2003). For instance the conversion of swampy areas into building public facilities as witnessed in the Apia town area of Samoa (Samoa Observer 2009). This could result in the effects of reduced capacity of the ground to uphold the building weight thus may lead to an easy ground sink by frequent earthquakes.

- **Global economic pressures** – the pressure by developed countries on global economies has forced developing nations to over-exploit their natural resources in order to increase exports which can lead to the nation being more vulnerable and exposed to natural disaster (Anderson et al. 2007).

- **Land degradation and environmental loss** – As more and more developments overtake the environment, coastal wetlands for instance have a greater exposure to storm surges and flooding as a result of urban encroachment (Faulkner 2001).

- **War as a global pressure** – this refers to the aspect of human activity and destructive capabilities of technology that trigger hazardous events (Dolnicar 2007) such as wars and bombing for instance that result in large scale migrations and displacements.
Several authors (Faulkner 2001, Beirman 2003, Pelling 2003, Specht 2006)) examined disasters and have categorised them into four broad groups of natural, biological, man-made and technological. Natural disasters are further classified into three major groups namely ‘hydro-meteorological’ (e.g. floods and wave surges, storms), ‘geological’ (e.g. earthquake, volcanic eruptions and tsunami) and ‘biological’ (e.g. epidemics and insect infestation) (Specht 2006). An example of a natural disaster that has affected the tourism industry over recent years is the Indian Ocean Tsunami in 2004. Sharpley (2005) described the event as the greatest catastrophe ever recorded in the history of world tourism with an estimated overall death toll of 300,000 with thousands of western tourists the victims. Hurricane Katrina on New Orleans in 2005, the Haiti hurricane in early 2010, the Katherine flooding in Australia in 1998 and the tsunami in Samoa in 2009 are all examples of natural disasters that impact on the tourism industries.

Biological disasters are caused through epidemics, such as foot and mouth disease in England in 2001 which affected travel flows in the United Kingdom, Europe and Asia, the Severe Acute Respiratory Syndrome (SARS) epidemic in 2003 that affected Asia and Europe, the Bird Flu epidemic in 2003 in Asia and Europe and the Swine Flu (H1N1) epidemic in 2009 that affected Asia and the Pacific (UNISDR 2009). Man-made disasters are those that are caused by human activities such as September 11 attacks on New York in 2001 that affected not only the global economy, especially the USA but also tourism to and from the USA (see for instance Goodrich, 2002). Another example is the Bali bombings in 2002 that affected the tourism industry of Indonesia (Pelling 2003). Technological disasters are those crisis caused by human carelessness or technical faults with devices or technology being used such as airplane engines that cause crashes or the recent BP oil spill in USA that may have been triggered by a technical fault (Beirman 2003). In light of these disasters and observation of aforementioned definitions, the remaining of this thesis focuses specifically on natural disasters.
3.3. **Natural Disasters**

The growth of research on natural disasters in the tourism literature is increasing in volume. An overview of some noticeable examples found during the literature search for this study is presented in Table 4. A natural disaster is defined by Alexander (1993, p 4) as “some rapid, instantaneous or profound impact of the natural environment upon the socio-economic system”. They are triggered by the occurrence of natural extreme events such as earthquakes, fire, volcanic eruptions, floods, and tsunami, or are due to biotic organisms (e.g. disease outbreaks and epidemic) (Alexander 1993, UN 2009), although as outlined above, this thesis will concentrate on natural extreme events and not biological disasters.

According to the Center for Research on the Epidemiology of Disasters (CRED), natural disasters are categorised into 5 groups (see Table 5) as biological, geophysical, hydrological, meteorological and climatological. Natural disasters are characterised by physical scientists in terms of their frequency, magnitude, intensity, speed of onset and duration together with their spatial and temporal distributions (Gregg & Houghton 2006). However, (Ritchie 2004, 2008) stressed that natural disasters and hazards are also caused by human input such as poor disaster management and inadequate mitigation, preparedness and response. Also, as Gregg et al (2006, p 22) point out “hazard characteristics may change as a result of events like global warming, environmental degradation, human land use and tectonic activities”. Furthermore Faulkner (2001, p 135) stresses that the environment has become increasingly turbulent and crisis prone “not only because we have become a more crowded world, but also because we now have more powerful technology that has the capacity to generate disasters”, for instance the September 11 attacks and Bali bombings in 2002.
The number of declared disasters resulting from natural hazards is increasing worldwide. Figure 14 illustrates the increasing number of disasters recorded in the EM-DAT database in 2008 (CRED 2009). According to this CRED annual disaster statistical review for 2008, China, USA and Philippines topped the list of countries that are most often hit by natural disasters over a three period with totals of 29, 22, and 20 respectively. India and Indonesia were amongst the list of top ranked countries affected by natural disasters over the same period (CRED 2009). The reported number of deaths, victims and economic damage in Asian countries reflects conditions such as increasing population numbers and densities in affected areas (Lenzer 2006).

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1 Whilst searches reveal a growing amount of scientific literature about the tsunami in Samoa on September 29th, 2009, little to no literature has yet been published concerning the social and cultural impacts of this disaster.
Table 5: CRED Natural Disaster Classification

<table>
<thead>
<tr>
<th>Natural Disasters</th>
<th>Biological</th>
<th>Geophysical</th>
<th>Hydrological</th>
<th>Meteorological</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemic</td>
<td></td>
<td>Earthquake</td>
<td>Flood</td>
<td>Storm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Volcano</td>
<td>General Flood</td>
<td>Tropical Cyclone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mass Movement</td>
<td>Flash Flood</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Dry)</td>
<td>Storm Surge /</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Coastal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flood</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mass Movement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Wet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rockfall</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Landslide</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Avalanche</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Subsidence</td>
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</tbody>
</table>

Disasters used in this publication

Hydro-Meteorological

Climatological

- Extreme Temperature
  - Heat Wave
  - Cold Wave
  - Extreme Winter Condition
- Drought
- Wildfires
  - Forest Fire
  - Land Fire

(Source: CRED 2008)

Figure 14: Top 10 Countries by Number of Reported Events in 2008

(Source: CRED 2009)
Looking at the data in Figure 14, it shows that hydrological and meteorological events dominate disaster frequencies on regional and global scales in China, United States and Philippines and less so for countries such Indonesian, India and Vietnam. Events such as cyclones, floods and earthquakes can produce multiple hazards while others may produce a single hazard. For instance, earthquakes can produce tsunami, hurricanes can produce heavy rain and flooding and cyclones can produce tornadoes. By looking at the list of countries affected in Figure 14, it shows that 7 out of 10 countries listed are SIDS. This indicates the fact that SIDS are exposed to a large number of natural hazards due to the characteristics of small-island developing states (SIDS) that make them particularly vulnerable to the impacts of natural hazards.

In 2009, the EM-DAT database recorded a total number of 328 natural disasters with a total death toll of 10 thousand, nearly 113 million affected and caused 35 billion US$ of economic damage (CRED 2010). Among the top 10 countries affected by natural disasters in 2009, Samoa bore the greatest loss in terms of most lives lost per 100,000 of population (Table 6) as well as the highest economic damage as per GDP (Table 7) (CRED 2010).

**Table 6: Ten most Affected Countries by Human Impact 2009**

<table>
<thead>
<tr>
<th>No. of people killed</th>
<th>No. killed/100,000 inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>India 1,733</td>
<td>Samoa 81.5</td>
</tr>
<tr>
<td>Indonesia 1,466</td>
<td>American Samoa 51.4</td>
</tr>
<tr>
<td>Philippines 1,362</td>
<td>Tonga 8.7</td>
</tr>
<tr>
<td>Taiwan (China) 630</td>
<td>El Salvador 4.5</td>
</tr>
<tr>
<td>China P Rep 561</td>
<td>Namibia 4.4</td>
</tr>
<tr>
<td>Australia 533</td>
<td>Bhutan 3.3</td>
</tr>
<tr>
<td>Peru 429</td>
<td>Taiwan (China) 2.7</td>
</tr>
<tr>
<td>Viet Nam 356</td>
<td>Australia 2.5</td>
</tr>
<tr>
<td>Italy 323</td>
<td>Solomon Is 2.0</td>
</tr>
<tr>
<td>El Salvador 275</td>
<td>Sierra Leone 1.9</td>
</tr>
</tbody>
</table>

(Source: EM-DAT database, CRED 2010)
From the above table, India bore the greatest loss in terms of most lives followed by four other countries from the same continent (Indonesia, the Philippines, Taiwan and China). The islands of American Samoa and Tonga were among the top 3 ranked countries with high number of deaths per 100,000 inhabitants as a result of the 2009 tsunami. Judging the above data, Samoa topped the list of countries that has the highest number of people killed over 100,000 inhabitants. This also implies that the humanitarian rehabilitation of the affected Samoan people may take a long time to recover, especially the psychological effects.

**Table 7: Ten most Affected Countries by Economic Impact 2009**

<table>
<thead>
<tr>
<th>In absolute amounts (US$ billion)</th>
<th>As percentage of the GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Samoa</td>
</tr>
<tr>
<td>China P Rep</td>
<td>El Salvador</td>
</tr>
<tr>
<td>France</td>
<td>Tonga</td>
</tr>
<tr>
<td>Italy</td>
<td>Lao P Dem Rep</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Burkina Faso</td>
</tr>
<tr>
<td>Spain</td>
<td>Fiji</td>
</tr>
<tr>
<td>Australia</td>
<td>Viet Nam</td>
</tr>
<tr>
<td>Japan</td>
<td>Honduras</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Philippines</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Nepal</td>
</tr>
</tbody>
</table>

(Source: EM-DAT database, CRED 2010)

On the other hand, the economic impact may take a shorter period to recover as many disaster relief funds, donations and other sources of aids from all over the world have assisted Samoa though it has not yet fully recovered. It appears that the economic loss caused by the tsunami for Samoa as a developing country is serious (MOF et al 2009). This is because of insufficient domestic funds and a lack of the country’s resources to cover the damage and loss, thus they have sought national and international assistance (UNDP 2009).
3.3.1. Related case - Indian Ocean Tsunami

Whilst there are numerous types of natural disasters that have threatened the success of tourism development worldwide, this research is specifically interested in discussion of tsunami as it sought to provide useful insights into understanding the objectives of this research. A review of the tourism literature indicates very limited research covering the topic of tsunami or any crisis management procedures that could have adequately prepared destinations for events resulted by tsunamis (Sharpley 2005). However, most of the reports, news bulletins and research cited broadly focused on the Indian Ocean Tsunami of 2004. Hence, the extent of information obtained and discussed in this section is based on findings gathered by various researchers and practitioners on their respective studies on the Indian Ocean tsunami.

The etymology of the term tsunami is thought to have derived from a Japanese word denoting ‘harbour waves’. Rittichainuwat (2006, p 392) in his study of Thailand’s Tourism Recovery explains tsunami as “a series of waves travelling across the ocean with extremely long wavelengths up to 100 miles between wave crests in the deep ocean”. Tsunami is widely known as a result of earthquake or a volcanic eruption (Cheung & Law 2006). Earthquakes are generated from sudden movements of tectonic plates. This causes massive disruption water at the seafloor and the strong pressure can move water above the seafloor creating tsunami waves (UNESCO 2005). The earthquake that caused the 2009 tsunami in Samoa originated from “a source located at 15.5°S and 172.03°W and a focal depth estimated at 18km by the US Geological Survey” (Okal et al 2010). Under the CRED classification of natural disasters, tsunami fits under the geophysical type where earthquakes and volcanoes are grouped.

Impacts of tsunami

The tsunami in the Indian Ocean on December 26 in 2004 is listed in the EM-DAT database as the strongest and biggest natural disaster ever recorded in the modern history (Rice & Haynes 2005). The tsunami struck the shores of 11 countries around the Indian
Ocean, of which 6 Asian countries; India, Thailand, Indonesia, Maldives, Sri Lanka and Burma (Myanmar) suffered severe damage and loss (Henderson 2005). It was a phenomenal event which had a huge impact on communities, individuals and business sectors such as health, education, agriculture and tourism and causing extensive damage (Cheung et al 2006). Total casualties were estimated to be 300,000 dead and 50,000 injured, among them were tourists and a massive widespread devastation of business buildings and homes (UN 2005). The intensity of the damage was not equally felt by all countries and the tourism industry suffered the greatest damage in Indonesia, Sri Lanka, Maldives and Thailand and minor destruction on India and Burma (Rice & Haynes 2005). Indonesia accounted for the highest total number of casualties (164,891 buried and 114,897 missing) and almost half a million displaced (UNEP 2005, p 18 cited in Sharpley 2005). Sri Lanka suffered the second highest with India and Thailand next. As observed by Henderson (2005), hotels across the affected areas in Thailand were severely devastated, with rubble and dead bodies being swept on shore and many hotels were in ruins or showed damaged buildings, furniture, ovens, fridges, with TV all scattered on the ground.

The impact on physical and social aspects varied amongst tourism industries. For example, the Thailand tourism industry suffered the most with not only the highest death toll amongst tourists of all countries affected by the tsunami but also the physical impacts on its five main resort areas of Kho Phi Phi, Koh Lanta, Krabi and most severely Khao Lak (Cheung et al 2006, Rittichainuwat 2006, Henderson 2005). Phuket, the fifth area, suffered minor damage as evident in its early reopening one week after the tsunami; however the majority of hotels were operating at an occupancy average of 10% (Henderson 2005). Thailand accounted for the biggest number of tourist deaths as nearly all of the worst affected areas were busy tourists resorts or fishing communities (Rittichainuwat 2006). Tourism industries in Maldives, India and Sri Lanka suffered less impact and most tourism businesses on the islands were operating after one to two months, although they suffered the same low occupancy rate as in Phuket (Rice & Haynes 2005). Another severe impact on the tourism industries in the affected areas was the loss of qualified staff either to other resorts in other countries or that many had died.
Furthermore, Rittchainuwat (2006) reported that some of the hoteliers in Phuket were complaining about the wrong news reports being released to the media. As he pointed out “distorted reporting was causing more damage than the tsunami itself. Because of inaccurate reporting, many workers in the tourist trade and allied industries have lost their jobs as foreign tourists are staying away from these places” (Rittichainuwat 2006, p 393). Overall, the total economic cost of the damage and destruction caused from the tsunami has been estimated at more than US$ 10 billion (Sharpley 2005).

Response

The Thailand tourism association has participated in road shows and travel trade shows in several markets to communicate to overseas travel suppliers and media reporters that Thailand is safe and is fully prepared to welcome international travelers.

The tsunami met with a massive international response of sympathy and support from everywhere in the world. The mobilisation of thousands of local rescue workers and medical professionals, rescue and medical aid teams from all countries (such as the United States, Germany, China, Japan) arrived in affected countries within 24 hours (UN 2005, OCHA 2005). International assistance provided food, medical assistance, temporary shelter and clothing aid to the victims. A common observation from researchers (Sharpley 2005, Cheung et al 2006, Henderson 2005, UN 2005) was that there was little or no indication of readiness for the tsunami despite that some businesses having some informal strategies for disasters. It also indicated the lack of awareness and common sense amongst people to understand that an extraordinary earthquake can quickly be followed by a tsunami (Henderson 2005).

Different tactics were used by various hotels in response to the impacts. Henderson (2005) reported his observation with one of the luxury hotels on the Thai Island of Phuket on the day after the tsunami, December 26. The front office manager completed a roll call of all guest and counted room keys to find out who was not on the premises
and the hotel called the hospitals and other hotels to search for tourists that did not return to the hotel after the first day. The hotels that were not severely damaged kept their staff under employment conditions such as less working hours through shifts due to small number of visitors staying in the hotels (Cheung et al 2006).

**Recovery Plans**

Different governments of the affected countries had different recovery plans for their tourism industries. In Thailand, the central government developed Master Plans for rebuilding of various beach resorts in the affected areas, however criticisms by tourism operators surfaced about the delay in recovery plans and the inactive role of government, thus tourism operators (for example on Ko Phi Phi) went ahead and started rebuilding tourism amenities (Rice & Haynes 2005). Local people also complained of the unfairness of the master plan where the government attempted to evict local people away from their usual residence by the sea to inland areas with provision of buildings that were too small, hot and inappropriate (Rittichainuwat 2006). As Rice & Haynes (2005, p 13) reported from a respondent that “many individuals and communities complain that they fell through the net and have received no assistance at all”. It is obvious from this case that the economic benefits of tourism can ambush planners and governments to make unwise decisions at the expense of local communities which leads to social costs of displacement and resentment.

In India, the same problems were encountered by the tourism operators and local people. The government, in collaboration with the World Bank, developed an Emergency Tsunami Reconstruction Project. The project covers post-tsunami immediate recovery and reconstruction for three years as well as livelihood restoration. The housing reconstruction regulations from 1991 came back into force in 2005; “no new construction is now allowed within 200metres of the high tide line and repairs on houses within 500 meters can only be made to structures built before 1991” (Rice & Haynes 2005, p 14). Together with this regulation, local people were forced to build their homes away from the ‘buffer zones’ and only those who obeyed this law got assistance from
the government to build their new home. However, the tourism industry had a quick recovery around India as most tourism businesses affected during the tsunami escaped with minor damages.

A more critical scenario was reported from Sri Lanka, where thousands of survivors were still homeless ten months after the tsunami. The problem lay with the new government recovery plan where local people are to be evicted from their usual residence beside the sea or what has been labeled by the government as ‘buffer zones’ (UN 2005). The post-tsunami plans solely focused on tourism development by the beach raised the concerns of local people about their relocations and forced evictions away from the place they used to live and earn their living in tourism and fishing (Rice & Haynes 2005, UN 2005). From an interview with a local fisherman, Rice & Haynes (2005, p 15) quoted the respondent's feedback “yet although the local people are being forced away from the coast, foreigners are being allowed to buy land inside the buffer zone”. Another local resident asked a question

why are hotels and tourist-oriented establishments exempted from 100/200metres rule but former residents had to be resettled in new housing compounds outside the zone? If exemptions can be arranged for hotels that need coastal location, then similar exemptions should also be possible for people or communities equally dependent on their coastal location for their livelihood (Rice & Haynes 2005, p 17).

These cases raise the concern of this researcher about the practicality of the sustainable tourism development criteria that many researchers and practitioners use as guidelines for planning, development and management of tourism at the community level (see also Chapter 2, Section 2.2.3). From a perspective of a developing country, it also raises the question, is the practice of sustainable tourism really living up to the promise of its definition? The answer to this question would be an interesting topic for future research. This will lead the discussion to a review of literature on areas crucial for tourism disaster planning and management.
3.4. Tourism and Natural Disaster Planning

3.4.1. Planning Concept

In the previous sections of this chapter, the discussion focused on ‘tourism’ and ‘disaster’ as it sought to provide a broad understanding of how these two terms interrelate in reality. Thus it appears that while tourism continues to grow all over the world, especially for countries that are heavily dependent upon tourism for their growth and survival, at the same time, tourism is frequently confronted by disasters of many kinds that threaten its survival and potential growth. It is also clear that tourism cannot escape the relative frequency of such events and the severity of the impacts they cause. It is therefore essential that effective and relevant strategies and measures are developed to minimise or avoid serious impacts of disaster on tourism.

Ritchie (2008, p 670) says that the pressure is on “managers and planners concerned with tourism to consider the impact of crises and disasters on the industry and develop strategies to deal with the impacts to protect tourism business and society in general”. To do this, effective ‘planning’ must be in place as a strategic and holistic approach to disaster management for the tourism industry (Ritchie 2004, 2008, Murphy 1989).

The term ‘planning’ can be described as “a process of human thought and action based upon that thought – in point of fact, forethought, thought for the future – nothing more or less than this is planning, which is a very general human activity, it is a kind of decision-making and policy-making” (Chadwick 1971, p 24 cited in Hall 2000, p 7). As Ritchie (2008) suggests, the emergence of disaster management is an important aspect of tourism planning, thus from a tourism perspective planning is one of the important functions of management staff of a working organisation (Buckley & King 2003) as far as a manager’s functions is concerned.

However in a disaster situation, Quarantelli (1988) stresses two points why management of disasters does not automatically follow from planning as there is often a gap between
planning and actual response to a major disaster (Ritchie 2008). First, “preparedness planning can be poor in the first place” (Quarantelli 1988, p 374). If plans are too specific or segmented, ignoring relevant social factors, then implementation will simply be of poor confused planning (Ritchie 2008). Second, poor planning can only encourage poor management activities, especially in cases of natural disasters which are mostly unpredictable (Hills 1998, Ritchie 2004).

In addition, from experience of the Katrina hurricane in New Orleans, the IUCN (2005, p 3) noted that “disaster preparedness in the world’s most powerful and technologically advanced society was still vulnerable to the glitches and failings that afflict all human activities”. Therefore it is;

possible to lack a formal disaster plan and yet be prepared for a disaster because all responding personnel have the knowledge, skills and equipment for responding to the demands of an incident. Conversely it is possible to have a written plan yet be unprepared for emergencies because those who are assigned roles by the emergency operations plan are unaware of them, are insufficiently trained, or lack the resources to perform those roles (IUCN 2005, p 3).

This indicates that no amount of preparation reduces the need for timely action when disaster actually strikes. Despite this, Faulkner (2001) and Faulkner et al (2001) concerns that tourism managers need to develop strategies and plans in order “to recognise crises in a timely fashion and implement coping strategies to limit their damage though they are often unable to prevent a crisis from occurring” (Ritchie 2004, p 674), are valid.

3.4.2. Tourism Disaster Planning

Due to this growing concern for disaster management and reduction, the UN designated the 1990s as the International Decade for Natural Disaster Reduction (IDNDR) (King
2006). During this decade, much of the focus has been concerned with embracing disaster mitigation through awareness and preparedness and an outcome “was the strategy of building hazard resilient communities” (King 2006, p 288) with relatively little reference to the direct involvement and needs of the tourism industry. Despite the wide recognition of IDNDR, the increase of economic costs and loss of life from natural disasters has continued to happen (Schneider 2006, Cioccio & Michael 2007). Thus at some point in a disaster situation, the resilience of the community to cope needs to be assessed in order to determine appropriate means of emergency relief (Faulkner 2001) through proper planning and management before and after the disaster situation.

The concept of disaster planning begins with the realisation that most natural disasters are unpredictable (Gregg & Houghton 2006). Most unpredictable results and disruptive effects of natural disasters are generally unavoidable as evident from environmental, social, economical and built environmental damage (Schneider 2006). However, future disasters and risks to life and property associated with them may be reduced with advanced planning. Ideally, through proper and effective disaster planning, the cost of disaster response and recovery can be substantially reduced (Gregg et al 2006).

Needless to say, as more and more natural disasters continue to affect tourism industries worldwide, and as many tourism planners, developers and managers believe that disasters cannot be prevented, it is not surprising that only a few tourism businesses managed to develop tourism disaster planning (Ritchie 2008, Cioccio & Michael 2007). Several reasons contribute to this problem, but lack of understanding in developing theoretical and conceptual frameworks for disaster preparedness and mitigation is the primary reason little progress has been made by tourism businesses (Faulkner 2001, Ritchie 2008). Nevertheless, it appears that the role of tourism planners is becoming more important as they place greater emphasis on balancing businesses growing interest in making money, paying closer attention to disaster planning and securing high security and safety of tourists (Gregg et al 2006; Cioccio & Michael 2007).
Having noted this problem together with an extensive study of other models; a crisis classification matrix (Cassedy 1991 & Drabek 1995 cited in Cioccio & Michael 2007); Stages in a community’s response to a disaster (Fink 1986 & Robert 1994 cited in Faulkner 2001) and Ingredients of tourism disaster strategies (Burnett 1998 cited in Ritchie 2001), Faulkner (2001) developed the first tourism specific disaster management framework (see Table 8) to assist and guide tourism planners and managers in establishing tourism disaster strategies (Ritchie 2004, Cioccio & Michael 2007). In the framework, six stages are identified as pre-event, prodromal, emergency, intermediate, long-term and resolution.

Table 8: Tourism Disaster Management Framework

<table>
<thead>
<tr>
<th>Phase in disaster process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-event</td>
<td>When action can be taken to prevent or mitigate the effects of potential disasters</td>
</tr>
<tr>
<td>Prodromal</td>
<td>When it is apparent that a disaster is imminent</td>
</tr>
<tr>
<td>Emergency</td>
<td>The effect of the disaster is felt and action is necessary to protect people and property</td>
</tr>
<tr>
<td>Intermediate</td>
<td>A point where the short-term needs of people have been addressed and the main focus of activity is to restore services and the community to normal.</td>
</tr>
<tr>
<td>Long-term (recovery)</td>
<td>Continuation of previous phase, but items that could not be attended to quickly be attended to at this stage. Post-mortem, self-analysis, healing</td>
</tr>
<tr>
<td>Resolution</td>
<td>Routine restored or new improved state establishment</td>
</tr>
</tbody>
</table>

(Source: Adapted from Faulkner 2001)

The first applications of this framework were carried out by Faulkner and Vikulov (2001) with the Katherine Floods in Australia and Miller and Ritchie (2001) with the 2001 Foot and Mouth Outbreak in the UK. From Faulkner et al (2001) study, modifications based on the application of the model took place and similarly, Ritchie et al (2004, p 671) noted in their summary of the 2001 case study of the Foot and Mouth
Outbreak that “further testing and the development and application of theoretical frameworks for crisis and disaster management is required in the tourism industry”. In support of the framework, Henderson (2007) in her recent review of how to manage tourism crises points out that maximum preparedness, responsibility, transparency and accountability to take action for disaster management is vital elements of the framework. However, it is argued here that the effectiveness of the framework depends on its interpretation and application by tourism planners and managers based on the resources available to them. Therefore it is suggested that managers of tourism destinations and organisations should consider and understand this framework as a generic source that guides them towards developing a more holistic framework suitable to their tourism industry and country in general.

3.4.3. Stages for tourism disaster planning

Whilst there are numerous models and frameworks such as Faulkner (2001) and Ritchie (2004) that pertain to tourism disaster planning available in the literature, this research has adopted Murphy’s (1989) four stages as it is easy to understand. It also seeks to provide more useful and meaningful information for the nature of this research. These stages include; assessment, warning, impact and recovery. Each stage is discussed in detail below and are related to central elements linked to Faulkner’s (2001) model of tourism disaster management framework (see Table 8 above and Appendix 2).

Assessment

Assessment is the first critical and vital stage in the process of tourism disaster planning as it tends to “explain ‘disaster’ as the precondition for a ‘risk’ which is the consequence (e.g. cost) of an event weighted by the probability of its occurrence” (Smith 2006, p 146). Its focal point seeks to look into pre-disaster phases of a disaster and provides direction for other planning stages during and after the disasters. Also, it helps planners develop strategies and plans to stop or limit the impacts of a disaster such as economic recessions and employee lay off (Ritchie 2004). This task involves a wide range of
representatives ranging from public and private sector organisations to tourism managers, planners and developers.

This stage includes identification, assessment and evaluation of potential risks and problems (Murphy 1989). Recognising the risks and problems involves environmental auditing, and scanning and collecting data on political, economic, social and technological environments (Moreira 2007). Through thorough environmental scanning, planners and managers should be able to identify the likely occurrence and trends of disasters and their potential impacts on businesses (Ritchie 2004). Identifying risks in terms of dollars, deaths and environmental damage are vital for planning responses to potential disasters (Smith 2006). Alongside risk analysis and assessment, development of emergency plans and preparedness strategies should take place based on background information collected on the history of natural disasters in the area and the likelihood of reoccurrence.

According to Renn (2008), risk assessment consists of three distinct steps; identifying hazards that could lead into a disaster; assuming the likely risks of such events and thirdly evaluating the potential impacts of the events (Ritchie 2008). However, Paton (2006) suggest that risk assessment must not solely focus on risk identification, estimation and evaluation, rather it must also “reflect… how hazard characteristics interact with those individual, community and societal elements that facilitate a capacity to adapt (i.e. increase resilience) and those that increase susceptibility to experiencing loss (i.e. increase vulnerability)” (Paton 2006, p 306) as shown in the following risk assessment equation (see Figure 15).

The assessment of risk is important in order to reduce the element of vulnerability to human property or lives (Ritchie 2008). As Pelling (2003) notes, this social element related to vulnerability has transformed the emphasis of disaster to a social product rather than a physical event. Paton (2006) describes disaster vulnerability as being a social construct as it evolves from factors such as personality, demographic and environmental characteristics. This means that some disasters such as land-slides and
floods can be induced by human activity such as unsustainable environmental practice and poor planning. According to the IUCN (2005), anticipating disasters based on previous experience is a useful tool in identifying risks and potential disaster reduction strategies.

**Figure 15: The Relationship between Risk, Resilience and Vulnerability**

Disaster reduction programs need to be developed by government departments and relevant sectors “such as finance, environment, agriculture, health, education, construction, social protection and community services as well as non government organisations (NGOs)” (Ritchie 2008, p 323). However Christoplos (2003 cited in Ritchie 2008, p 323) contends that governments do not pay attention to avoiding and preparing for disasters unless the threat of disaster appears.

**Warning**

In the warning stage, effective communication channels and message effectiveness are identified and evaluated. The development of effective warning information involves input and collective effort from a wide range of specialists including information technician, media officers, disaster planners, emergency personnel and all those who are directly involve with disaster warning programs and systems (Gregg et al 2006). Once
the risks have been identified, assessed and evaluated, planners and managers should be in a good position to foresee the potential dangers of disasters. Appropriate alternatives towards removing hazards, avoiding consequences or mitigating the impacts must then be put in place (Murphy 1989). Preparation of warning information must integrate effective warning systems that are scientifically monitored and detected by an emergency organisation (Gregg et al 2006). The emergency organisation should possess both the skills and knowledge in utilising warning technologies that facilitate the rapid issuing of alerts and notification to the public. Furthermore, warning systems “must ensure that official warning messages motivate the desired public response for both those events requiring immediate response (e.g. earthquakes, local tsunamis, tornadoes) and events that allow time to react (e.g. distant tsunami, hurricanes)” (Gregg et al 2008, p 33).

The role of media in disaster planning and management strategies is crucial for disseminating warnings leading up to a predictable disaster and providing information during the recovery stage (Faulkner 1999). However as Ritchie (2008) suggests, false information released by media can greatly hinder the efforts of emergency organisations from their tasks. In the Indian Ocean tsunami, Rittichainuwat (2006) has noted the complaints amongst the tourism operators about misleading reports exaggerating the extent of the 2004 tsunami which caused adverse impacts on decisions made by those businesses that were not affected. During this stage, Renn (2008, p 36) lists four major functions of the emergency organisation in relation to dissemination of proper disaster warning information;

- Education and enlightenment – involves informing the public about risks and handling of these risks.
- Risk training and inducement of behavioural change – help people to cope with risks and potential disasters.
- Creation of confidence in institutions responsible for risk assessment and management – the public should be assured that information they receive is from reliable sources and that it is effective, efficient, and easy to accept and apply.
- Involvement in risk-related decisions and conflict resolution – allow stakeholders and representatives of the public the opportunity to participate in risk assessment and evaluation deemed suitable to their specific purpose and interest which leads to making decisions that affect them.

From the tourism perspective, warning systems and information can be developed for hazard prediction and forecasting specifically for tourism businesses in line with the guidelines provided by the emergency organisation. The need to inform tourists of both potential dangers and appropriate lifesaving actions are crucial in the tourism business warning system. This involves the development of an emergency plan that “integrates advance warning system, creation of a disaster management command centre and prepared coordination between emergency services and tourism authorities” (Ritchie 2004, p 675).

**Impacts**

As illustrated in the assessment and warning stages, most of the tasks become the public sector’s responsibilities. On the other hand, the impact and recovery stages possess particular relevance and application to tourism (Murphy 1989, Ritchie 2004). The impact stage situates disaster planning in a position where the actual disaster impact occurs. Assessment of potential impacts is usually associated with responses that link to the impacts which mainly look at post-disaster (Ritchie 2008). Impacts are reflected in the intensity and magnitude of the disaster. The image of security and pleasure of the destination can be shattered which leads to uncertain consequences including social, economical and environmental problems (Faulkner 2001, Ritchie 2008).

The intensity of impacts resulting from disasters are usually measured in terms of actual number of deaths, economic loss, environmental damage, infrastructural destruction and impact on world economy and international relations (Meheux & Parker 2006). Recent examples of impacts of disasters on tourism include an earthquake in Haiti on February 2010 which prompted the number of international visitors to the island to fall by 20% in
the following 6 months (CRED 2010). Following the tsunami in 2004, tourist arrivals in Thailand dropped to 30%, and most of the hotels around the region struggled at between 25% and 40% of average occupancy, during six months after the tsunami (Sharpley 2005). In September 2009, Samoa tourism was severely affected by the tsunami causing huge destruction of all tourism operations around the coastal area of the main island of Upolu with tourist arrivals dropping to 40% of previous numbers for the two months followed the tsunami (STA 2010).

Furthermore, the terrorist attacks on the twin towers in New York and the Pentagon in Washington DC in September 2001 resulted in the closure of transport routes linking to the cities as well as airports (Beirman 2003). This event contributed to a massive decline in international tourism receipts in several countries globally both in tourism contribution to GDP and employment. For example the World Travel and Tourism Council (WTTC) projected a 10% drop of both economic and employment in tourism contribution to global GDRP, the United Kingdom a 1.9% drop of total GDP of the UK economy and 190,000 jobs losses, the USA a decrease of 1.8% per cent of total GDP of the US economy and 1.1 million jobs losses and the world a decrease of 1.7% of total GDP of the world economy and 8 million jobs lost (Beirman 2003).

Recovery

The manner in which the tourism industry is affected after the disaster depends on a range of factors including the internal cultures of organisations responding to disaster; the ability of decision makers to respond proactively (Prideaux 2001); the approach of media coverage; the availability of resources to respond to the disaster; and the ability of the tourism industry to continue operating during and after the disaster (Cioccio & Michael 2007). As Faulkner (2001, p 142) stressed “the effectiveness of those within the tourism industry in dealing with and recovering from a crisis or disaster, reflects the degree to which they are prepared for recovery”. Likewise the speed and extent to which a community bounces back from disaster is a measure of resilience (King 2006). Drawing on elements of disaster recovery strategies, Murphy (1989) suggested three
stages that a tourism industry may pass through during a disaster recovery; emergency response, restoration or reconstruction, and improvement. These stages are closely linked with the last three stages of tourism disaster management framework (intermediate, long-term recovery and resolution) postulated by Faulkner (2001) which serve the same purpose of “assisting the tourism industry and government in devising disaster management strategies” (Xu et al 2009, p 108).

- Emergency Response

During the emergency response, reactions of the tourism industry to a disaster vary based on elements such as socio-economic structure, community culture involved, resources available and the ability of tourism to recover and start operating again (Quarantelli 1988). This implies the effective planning for organisations and proper utilisation of human, financial and other available resources in order to respond efficiently and effectively to a disaster situation is of great importance (Henderson 2007). Plans for emergency response after a disaster involve rescue and evacuation procedures of victims and burial of dead bodies. Faulkner (2001) in his framework suggests that the main focus during this time is to address the short-term needs of people and restore services and the community to normal. For instance, the provision of humanitarian needs for water, emergency shelter, food, clothes, medical supplies and health services and other necessities for the victims (UNDP 2005). Therefore, Homan (2003) noted from his study on the social construction of natural disaster in Egypt and the UK, that proper planning for emergency responses must highlight actions necessary to help people cope with the impacts as well as protect the property from more damage.

Emergency response also relies on effective disaster communication amongst the organisations involved, however, as observed by Dynes (1974 cited in Quarantelli 1988, p 375), apart from the disaster agent itself, “in most but not all cases the major source of problems in disasters is to be found in the organisations responding to the emergency”. For example, Hall (2002 cited in Ritchie 2004, 676) notes the lack of response by the airline industry to previous terrorist threats prior the September 11 attack. In a similar
vein, Gurtner (2007) reported that local authorities ignored the reports of terrorist activity in Indonesia prior to the Bali bombing. This was due to the obvious lack of familiarity on the part of local authorities with effective crisis management procedures.

Quarantelli (1988) later recommends that “if there is to be major improvement in disaster planning and disaster crisis management, it will have to come in changing the behaviour of the relevant emergency organisations” (Dynes, Quarantelli & Kreps cited in Quarantelli 1988, p 375). As noted by Rittichainuwat (2006) in her study of the Indian Ocean tsunami, most of the tourism businesses that were not affected suffered from the wrong messages and information being released by the media. Complaints about the overstatement of warnings could permanently ruin the positive image of the countries as tourist destinations (Rittichainuwat 2006). Therefore a proper flow of communication between the tourism officials and media must be integrated into tourism disaster planning (Henderson 2007). In doing this, when the risks have disappeared, the media must be provided with up-to-date and consistent information by tourism officials so that accurate information can be released about the affected areas (Ritchie 2008, Faulkner 2001). Internal communication within the tourism businesses, the tourism industry and tourists is also essential as tourists need to be informed of the recovery progress of the affected areas due to the point that “tourism can advance the recovery stage by dispersing factual information internationally and by bringing visitors back to an affected area” (Murphy 1989, p 39).

Another important element of planning for emergency response is an immediate impact assessment of the disaster on local tourism businesses. From this assessment, the extent of damage and potential recovery strategies are made known. Planning practices and decisions during an emergency period are useful in identifying the suitable personnel(s) to take the responsibility of evacuation coordination, guest roster check, security coordination, emergency communication, emergency shelter and employee coordination (Glaessser 2003).
• Restoration

The process of restoration focuses on several areas. These include the repair of damaged infrastructure, rehabilitation of environmentally damaged areas (Murphy 1989), providing counseling services for victims, reconstruction of businesses and rebuilding businesses images in order to regain customer confidence (Faulkner 2001).

Several areas are significant to consider during the restoration planning stage. Communication control appears to be a vital element throughout the planning process for tourism disaster. During the restoration period, effective and efficient communication strategies can often speed up the recovery of a tourist destination (Ritchie 2004) while poor communication can make the disaster worse as questions are often asked by concerned stakeholders, causing a delay in recovery (Glaesser 2003). For instance, the misleading information given through the media coverage of the Indian tsunami was noted as contributing to the slow regaining of international tourist’s confidence to use tourism services and facilities in Asia. This impacted upon the long term recovery for most tourist destinations in Asia especially those businesses (and countries) that were not affected by the tsunami (Cooper & Erfurt 2007).

Another essential element for consideration in tourism disaster planning for restoration is resource management. Proper organisation and utilisation of resources is important for a fast recovery. These resources include financial, human and physical resources (Ritchie 2004). Assigning human resources into workable groups according to the expertise and skills needed for restoration can only be effective if financial and physical resources can also be properly allocated for the task carried out by the human resources (Henderson 2007). In most cases, formation of a management team and selection of a team leader at an organisation, industry or destination level is the key to quick decisions and fast restoration (Ritchie 2004). According to Faulkner (2001, p 143), the role of team leader is crucial during the restoration period, therefore selection should be based on qualities such as,
ability to communicate effectively, prioritise and manage multiple tasks, ability to delegate, coordination and control, work cohesively with a crisis management team and make good decision quickly.

Examples are noted from several studies; Xu (2009) reported from his study of the Sichuan earthquake in China 2008, that an inspection team was formed 10 days after the earthquake to assess the magnitude of damages. Faulkner et al (2001) also reported the damage audit system set up by the Northern Territory Tourism Organisation (NTTC) to assess the damage and identify potential strategies for reconstruction after the Katherine floods in 1998. Another example, noted by Ritchie (2004) during the Foot and Mouth outbreak in 2001 in Britain, is where the British Tourist Authority (BTA) set up an Immediate Action Group (IAG) comprising a wide range of representatives of departments to facilitate implementation for recovery from the outbreak. From the South Pacific region, the set up of the Tourism Alliance Group after the Fiji coup in 1989 is a good example of such alliance.

Moreover, stakeholder collaboration appears to be another essential ingredient in tourism disaster planning (Xu 2009, Ritchie 2008, Faulkner 2001). Stakeholders in tourism as Faulkner (2001), Murphy (1989), and Prideaux (2001) suggest include central government, tourism industry representatives, tourists, media, local communities, local businesses and employees. The path to success in tourism disaster planning is all about getting the stakeholders involved and working in a collaborative manner to ensure that disasters are well managed in the tourism industry (Ritchie 2004). The plan requires stakeholders be aware of their respective roles in relation to the implementation of strategies in times of disasters (Gurtner 2007) through clear, transparent and effective communication, positive relationships amongst members, mutual understanding of cultures and a cooperative approach in dealing with disasters if/when they happen (Xu 2009, Glaesser 2003).
• **Improvement**

The improvement stage during the recovery process directly focuses on the commitment from all stakeholders to review and evaluate the disaster planning from time to time (Ritchie 2008). In order for tourism disaster plans to yield successful disaster management and implementation, it is imperative to consistently review and reassess the appropriateness of disaster planning (Henderson 2007). In doing so, tourism stakeholders must stay alert for unpredictable disasters (Faulkner 2001) as well as keeping abreast with the latest changes at all levels that might cause or mitigate potential crisis or disaster (Cioccio & Michael 2007). As disasters continue to threaten tourism, stakeholders must also, concurrently and consistently assess the collective and cumulative experiences from both past experiences and current experiences of such disasters (Xu 2009). By doing this, the reviews, changes and amendments made to the disaster plan are not only continual but also completely up-to-date.

Given this perspective, the catastrophic 2009 tsunami that caused damage to the tourism industry around the south coastal area in Samoa had profound implications for natural disaster planning for the entire Samoa tourism. This is an important development for the national tourism organisation and government as Samoa did not have any previous disaster management plan specific for the tourism industry. The strategies for risk management, disaster mitigation and better tourism management in the face of climate change postulated by the South Pacific Travel (see section 2.5) for Pacific nations tourism industries is a founding guide and strategy for Samoa to develop a disaster plan for its tourism industry.

**3.5. Summary**

This chapter has reviewed and examined the tourism and disaster literature relevant to this research. As suggested, tourism is one of the fastest growing industries worldwide both in terms of economic and development terms. At the same time, it is also regarded as one of the most vulnerable industries to crises and disasters. This is due to the
exposure of tourism development in areas that are closely linked with high risk. Disasters are varied in type and scale whereby they can be either predictable or unpredictable. The predictable events are the ones that can be dealt with quickly while the unpredictable may take a longer period to cope with. In an effort to cope with impacts caused by disasters, planning has become a significant role for tourism officials. Such tourism disaster planning can occur in a sequential pattern from how disaster occurs to the time of recovery. The focal point of planning for disaster is to provide strategies to cope, if not possibly stop, the impacts resulted from disaster based on past experience of such events and current events happening around the world.

However, in order for disaster planning to be effective and applicable, several factors are required such as proper organisation and utilisation of resources, consistent and accurate information and communication amongst the stakeholders, co-operation in implementing the plan and commitment in reviewing and reassigning the plan. Of concern is reporting and analysing of the damage caused by natural disasters (with particular reference to ‘tsunami’) on tourism in Samoa and how tourism operators respond to the damage as well as examining strategies that help recover tourism in the affected areas. It is vital therefore that tourism planners and operators, in collaboration with other relevant organisations, assess the impacts of natural disasters on tourism and respond accordingly by being prepared for future disaster by formulating disaster management plans and implementing them accordingly.

The next chapter will discuss the methods employed to collect, analyse and interpret data for to this study. This is followed by the presentation of results in chapter 5.
Chapter IV: Methods

4.1. Introduction

This chapter presents the research methodology used to achieve the aim and objectives of this research. It goes on to explain the ethical process, issues arising from interviews and the limitations of the study. The research design has a flexible approach, as it is an exploratory study using qualitative methods of data collection, analysis and reporting. The study was conducted in Samoa and the social context (cultural background, protocols, values, behaviours and norms) of the Samoan society stipulated in the ‘fafaSamoa’ as previously described in chapter one has determined the direction taken in this research.

4.2. Methodology

The methodology for this research was designed to account for discussion of the research aim and objectives presented below:

**Research Aim:** To examine how tourism businesses in the Safata district are recovering from the 2009 tsunami in Samoa.

**Objectives:**

1. To explore the immediate impacts tourism businesses suffered from the tsunami.
2. To identify the emergency responses that occurred in the aftermath.
3. To explain the issues and challenges arising from the recovery process.
4. To examine the strategies and opportunities that tourism operators and relevant organisations are using to recover tourism in the district. This involves examining the preparedness programs for future disasters.

Having observed the scope of this research, qualitative methods stood out as the most appropriate approach towards achieving its aim and objectives. Qualitative research as recognised by (Mertens 2005, p 229) as:
a situated activity that locates the observer in the world. It consists of a set of interpretive material, practices that make the world visible. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self. This means that qualitative researchers study things in their natural settings, attempting to make sense of or to interpret phenomena in terms of the meaning people bring to them.

According to Denzin and Lincoln (2000), qualitative research develops deeper understandings of human behavior by categorising data, usually in the form of words, pictures or objects, into patterns as the primary basis for organising and reporting results. Quantitative research on the other hand focuses on numerical analysis which involves collecting data pertaining to the frequency of occurrence of a phenomena (Bowen 2002). This research involved gathering a vast amount of information about a small number of people and the information collected is (generally) not presentable in numerical form (Creswell 2005, Mertens 2005). The current research has a small sample size and the data collected are presented in a descriptive form rather than numerical. Whilst this approach can be a disadvantage as the researcher may impose her personal views on a respondent which may influence participants’ response, this potential bias was recognised. The researcher made the effort to be as impartial as possible and ask respondents probing questions around their responses in order to try to avoid any bias or influence over participant’s responses.

Because the research was conducted in Samoa, the researcher’s epistemological and ontological knowledge of the cultural values, protocols and (perceived) behaviour of research participants guided the researcher throughout the data collection process. This approach enables an understanding of the experiences, perspectives and histories of people within the context of their own settings (Bowen 2002) This epistemological approach describes the researcher as someone who;
Wants to know what meaning people attribute to activities…and how that related to their behaviour. These researchers are much clearer about the fact that they are constructing the “reality” on the basis of the interpretations of data with the help of the participants who provided the data in the study. They do a great deal of observation, read documents produced by members of the groups being studied, do extensive formal and informal interviewing, and develop classifications and descriptions that represent the belief of the various groups (Eichelberger 1989 cited in Mertens 2005, p 15).

The researcher’s awareness of the protocols governing Samoan communication and having a common cultural background helped establish good relationships with participants before entering the field and throughout the interview sessions.

4.3. Research Design

The design for this research has a flexible approach, as it is an exploratory study utilising qualitative methods of semi-structured interviews and site observations. Quantitative forms of research have been traditionally seen to present the maximum validity to research (Denzin & Lincoln 2000). However, social scientists have increasingly moved to qualitative research, recognising that much valuable information is difficult to measure in statistical, numerical ways (Denzin et al 2000, Mertens 2005, Wolcott 2001). The scientists in the positivist tradition depend heavily on numerical data and measurable elements in their studies to obtain value of the results (Mertens 2005, Denzin et al, 2000). The concern then is the assumption of what is not measurable that has less value and would be considered less valid.

However with qualitative research, the degree of ‘richness’ about the data gathered, which should highlight all the contributing factors towards achieving the research objectives is what gives value to the results (Denzin et al 2000). To obtain ‘rich’ data in qualitative research requires in-depth interviews and thorough observation to explore the respondent’s attitudes, their factual knowledge and emotional responses. One of the
disadvantages of qualitative research method can be the small number of in-depth
interviews due, in part, to the time constraints of the research, and which may lead to
problems in providing large amounts of replicable data. (Denzin et al 2000, Wolcott
2001). Nevertheless, the researcher’s awareness of the possible disadvantages of this
type of research, her reflective thought process throughout the data collection period and
the diligence used when collecting the data (asking probing questions, double checking
information provided, conducting research until a saturation point has been reached and
exceeded) allows her to conclude that the data collected for this research provides
reliable and valid results pertaining to tourism in Samoa and its recovery from the 2009
tsunami. Also, as suggested in chapter one, very little has been written about the impacts
of the 2009 tsunami on tourism in Samoa. Therefore, the amount of data collected
during the course of this research will allow this researcher to begin to explore and
disseminate knowledge about this catastrophic event.

4.4. Research Methods

Semi-structured interviews were the main source of data for this research. They were
utilised as they provide useful insights into understanding the reality of participants’
attitudes and expression of their emotions by enabling the researcher to be present and
observant when they respond to the questions. Also, these interviews with tourism
providers provided an important context to the research, as well as insights into the
extent of tsunami impacts, emergency response to the tsunami and the recovery reliefs
undertaken by the affected businesses and governmental and NGO bodies involved. In
addition, the semi-structured interviews allowed the participants to freely express their
point of view as much as possible (Westwood 2007) and answer honestly in an informal
atmosphere suitable for both the researcher and participant (Wolcott 2001). Having a
common cultural background with research participants and understanding of the
Samoan community social construction, the researcher used an informal approach when
conducting interviews, setting a conversation whilst getting the best out of participants’
responses. This provided useful insights into understanding the varying degree of
destruction suffered by tourism managers and the amount of response they used.
Site observations together with taking notes and photos supplemented the data collected from interviews. Due to the on-going status of post-tsunami recovery and my research focus on the tourism recovery process, this method was useful as it enabled the researcher to have a better understanding of the complex social phenomena (Bowen 2002). Observation of each affected site in this study was used to provide a context for the interviews, and to interpret and attempt to make sense and find meaning of what the participants said during the interviews (Mertens 2005). In addition, the purpose of the site observations were to gain more information about how the response and recovery planning works in reality for tourism businesses, and to examine the capacity of tourism businesses to respond and recover from the tsunami. Site observations provided useful insights into understanding the reality and evidence of the physical destruction tourism businesses suffered as well as their recovery plans and reconstruction work. A form was devised to standardise observation data (see Appendix 11). The researcher also attended and observed one of the national workshops focusing on tourism rebuilding activities in the coastal area which was attended by representatives of affected businesses in the Safata district. This allowed the researcher to have a greater understanding and awareness of the issues faced by the businesses involved and how the organisations involved in providing the workshop were trying to help with and even overcome some of these issues.

Secondary research was also used by gathering, interpreting and analysing media reports from local newspapers and the internet as well as governmental reports and NGO resources focusing upon tourism recovery in Samoa after the tsunami. Appendix 10 presents a list of documents and reports that were reviewed for this study. For the purpose of this thesis, the researcher analysed the relevant documents, using a thematic analysis approach. The analysis focused upon the tsunami impacts on tourism, emergency response, recovery plans and natural disaster plans that government organisations’ have in place. The Early Recovery Framework Report by the MOF and other bodies was the main report reviewed as it explained the central government and other stakeholders’ post-tsunami
programs and plans that particularly focus on tourism response and recovery. Analysis also focused on the involvement of government organisations and NGOs with tourism recovery. Their plans and roles were analysed and examined under the four categories of the disaster cycle: impacts, response, recovery, mitigation and preparedness (see Chapter 3, section 3.4). In doing so, the analysis provided a basis for examining the response and recovery process of tourism, a crucial aspect of natural disaster planning (Specht 2006). Plan subsections that identified governmental responsibilities specifically for tourism response and recovery were also reviewed to determine the government organisations plans and actions for natural disaster response and recovery of tourism.

Secondary data was also collected by reviewing media articles on the internet, newspapers and news websites related to post-tsunami recovery situations in Samoa, disaster management and other related case studies such as the Indian Ocean Tsuanmi. News websites and newspapers with information on the recovery projects in Samoa were reviewed and used to provide some themes for the data analysis of all secondary data. These reports were invaluable as they provided additional data on the impacts of tsunami on tourism businesses as well as the response by tourism businesses to these impacts. The reports also provided information on governmental responses to the impacts of the tsunami and analysis allowed comparison between these reports and government documents and interviews.

The following sections discuss in more detail how the semi-structured interviews were conducted for this research.

4.5. **Sample selection for interviews**

A combination of purposive and snowball sampling methods were utilised to identify the tourism businesses and relevant organisations involved in the study. The purposive method was used to identify tourism businesses and relevant organisations. Snowball sampling was later used whereby managers and CEOs referred the researcher to junior level employees for the interviews.
The selection of Safata district was based upon its relevance as it is home to the majority of tourism businesses that suffered severe damage from the tsunami in Samoa. Five tourism businesses from Safata district were selected and invited to participate in this study as they were all operating when the tsunami hit. The selection took into account the nature of these business operations; they had to be providing tourism activities that promoted cultural and natural attractions of the south coastal area of the main island of Upolu. Furthermore, the selected businesses significantly contribute into the country’s economy and most of them employ large numbers of local community members, thus helping local people improve their quality of life and standard of living. Four tourism businesses accepted the invitation and details of services and facilities provided by each business before the tsunami are presented in Table 9. Three of the four businesses are locally owned and operated while the other is locally managed but owned by a foreign couple.

Four relevant government organisations and non-government organisations (NGOs) were also selected to take part in the interviews. The selection of organisations was based on their direct involvement in areas such as overseeing of the planning, development and management of tourism development in Samoa, handling and distributing of disaster relief aids for those affected by the tsunami, providing guidance and assistance in disaster management plans and regulating, controlling and managing the impacts of the tsunami on natural environments.
<table>
<thead>
<tr>
<th>Tourism Business</th>
<th>Facilities &amp; Services offered</th>
<th>Services offered</th>
<th>Ownership</th>
<th>Total number of Employees</th>
<th>Tourists at site when the tsunami hit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Accommodation, restaurant, bar, swimming pool, conference venue, souvenir and gift shop, business centre, golf course, internet centre</td>
<td>water sports, spa, snorkeling, surfing, diving, tennis courts, scuba diving, village walking tours, kayaking, garden walks, game fishing, boat tours.</td>
<td>Local manageme nt &amp; local family ownership.</td>
<td>96</td>
<td>57</td>
</tr>
<tr>
<td>B</td>
<td>Restaurant, bar, 3 accommodation fales</td>
<td>Cater for visitors staying in nearby businesses, catering,</td>
<td>Local manageme nt &amp; local family ownership</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>Accommodation (complimentary mini bar), restaurant, bar, swimming pool, spa, gift shop,</td>
<td>Snorkeling, diving, 24 hour reception, water activities, surfing, mountain biking, kayaking, tours, rental cars, yoga, scuba diving, wedding and honey moon activities, boat tours, village &amp; tours.</td>
<td>Local manageme nt, foreign ownership</td>
<td>101</td>
<td>40</td>
</tr>
<tr>
<td>D</td>
<td>6 Surf fales, surf gear office, shop</td>
<td>Surfing, snorkel excursions, boat trips, surf lessons.</td>
<td>Local manageme nt &amp; local ownership</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>
4.6. Data Collection Procedures

4.6.1. Confirming interviewees

Before the interviews started, a letter was personally delivered in mid January to five tourism managers and four chief executive officers (CEO) of relevant organisations asking them for an interview. The letter contained information on the research topic, a brief background of the research and an invitation for the interview (refer to Appendix 3 for details). Three tourism managers could not be found at site on the date letters were delivered because the businesses were still closed as a result of the devastation of the tsunami. The business managers of the two businesses that were open were unavailable, thus the researcher left the letters with telephone operators. The search for the remaining three tourism managers extended to an internet search and finally the businesses websites, hence email messages were sent and the letter was attached to each email.

Replies from tourism businesses were received after several attempts through telephone calls and email messages. The unreliable communication connection or slow recovery of communication networks in the affected areas added to this problem. From the five letters that went out, one business manager did not reply thus this lack of response has been treated as being unwilling to participate after several unsuccessful follow up telephone calls. The researcher found out from the national tourism organisation (STA) that the final business had been severely destroyed and was still closed. Two of the four managers who replied were willing to participate in interviews while the other two delegated the role to their junior employees.

Two of the four organisations invited accepted the invitation to participate. These are key organisations in planning, development and managing tourism activities and services in Samoa. One of the CEOs was available for the interview while the other referred the researcher to one of the organisation’s divisional managers for the interview. The overall number of confirmed interviews in this research was six. Table 10 below
presents the characteristics of each participant and their position held in the tourism business or relevant organisation by the time interviews were held. Pseudonyms have been used to replace the participants’ real names.

Table 10: Participants profile and position in Tourism Businesses and Organisations

<table>
<thead>
<tr>
<th>Name</th>
<th>Age range</th>
<th>Gender</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latu</td>
<td>30 - 40</td>
<td>Male</td>
<td>Employee, Business owner’s brother</td>
</tr>
<tr>
<td>Dora</td>
<td>40 - 50</td>
<td>Female</td>
<td>Business manager</td>
</tr>
<tr>
<td>Tai</td>
<td>20 - 30</td>
<td>Female</td>
<td>Employee, business owner’s relative</td>
</tr>
<tr>
<td>Fay</td>
<td>40 – 50</td>
<td>Female</td>
<td>Business manager</td>
</tr>
<tr>
<td>Hanna</td>
<td>30 – 40</td>
<td>Female</td>
<td>Divisional manager, relevant organisation</td>
</tr>
<tr>
<td>Sella</td>
<td>40 – 50</td>
<td>Female</td>
<td>Chief executive officer, relevant organisation</td>
</tr>
</tbody>
</table>

4.6.2. Conducting Interviews

The interviews were undertaken over a two months period. The first round of interviews was held in March 2010 for relevant organisations and provided the first body of data and the second round of interviews were conducted in April with the tourism businesses. Interviews with organisation informants took place at their work offices. Interviews were scheduled during the morning hours and each lasted approximately 1 hour and 45 minutes. Interview questions focused upon the tourism industry as a whole rather than a specific sector of tourism. The researcher sought approval from key informants for provision of report materials such as the Tourism Development Plan, Accommodation Standards and Tourism Tsunami Beach Fale Re-building Program (TTRP) useful to the research.
Interviews for tourism managers took place in April at each tourism site. Two interviews were scheduled on two consecutive Saturdays during the morning hours. The timing was to reduce travel expenses for the researcher and to avoid having the researcher travelling alone and for vast distances during week days. Interviews with each business manager lasted approximately 2 hours while the junior staff interviews lasted from 30 minutes to 45 minutes.

Before each interview, the participant was asked to choose their language preference either in Samoan or English language and four out of six interviews were conducted in English. Participants were asked to sign the consent form (see Appendix 4) as proof of their agreement before the interview started.

Interviews (refer to Appendix 5 and 6 for interview questions) were conducted in a semi-structured style with questions mainly in an open-ended style based on the broad themes of;

- Immediate impacts of tsunami on the business or tourism industry as a whole.
- The emergency response by the business or organisation after the tsunami.
- Issues and challenges faced by the tourism business or organisation during the recovery process.
- Strategies and opportunities that tourism managers and relevant organisations use for recovery of tourism sector.
- Preparedness plans for future disasters.

This thematic approach during interviews was done to give the participants more freedom to respond in their own words with reasons for choosing their answer as well to avoid misinterpreting the meaning of the response in the Samoan language. It also allowed greater spontaneity and adaptation of the interaction between the researcher and the study participant (Tofaeono 2000).

This is evident as observed and reported by Tofaeono (2000 p 22), “Samoans are prone to say what they think the researchers want to hear when research is conducted in a
formal structured interview”. The traditional habits of respect and formality central in the realm of the Samoan way of life (fa’aSamoa) can heavily influence the responses to formal interviews and may lead to misleading outcomes (Tofaeono 2000). However, mutual trust and respect gained during informal telephone conversations and email messages assured the process ran smoothly. Being a Samoan researcher and sharing common cultural backgrounds with participants also influenced the interaction for both researcher and participant in an open and honest manner (Mertens 2005).

The researcher used the Samoan traditional approach of greeting the participants and introducing herself and purpose of the research before every interview started. A detailed introduction of the research topic using simple and clear terms was done to avoid misunderstanding and communication barriers that would affect the flow of conversation (Wolcott 2001). The notions of respect and trust as core elements of fa’aSamoa were crucial guiding tools for the researcher throughout the data collection process. The researcher used the formal Samoan way of greeting the participants and maintained active interaction with participants during the interviews. This approach made the interviews run smoothly assuring the participants that information given is strictly confident and that their names would not appear anywhere in the final thesis.

4.7. Ethical Approval and Consideration

As the requirement of this research, an ethical application (Appendix 7) was submitted to the University of Otago’s Ethics committee for approval in July 2009. The ethics application was also required to submit at the departmental level (Tourism) for final approval before it is proceed to the University’s committee. Other documents such as a field work ‘safety plan’ and ‘budget’ (Appendix 8) were also required at the departmental level for approval of research funds and release of necessary tools and resources required for the field work.

Initially, the research was focused on examining ecotourism as a useful tool in conserving and managing the MPAs in the Safata district. However, when the tsunami
hit Samoa in September 29th 2009, the researcher decided to change her research topic from ecotourism to tourism recovery from the tsunami as it seems more in line with the current issues and discussions in her country at the time. The researcher sought the approval from her supervisor about the change and was given full support. Changing and editing major sections of the ethics document to accommodate the changes made took place with the help of the supervisor. The edited version of the ethics was resubmitted supported by a letter prepared by the supervisor and approved by the University Ethics Committee (see Appendix 9).

4.8. Limitations and Issues

This research needs to be examined in the light of the following issues arising from interviews and limitations of study. One of the major difficulties and time consuming experiences during data collection was the availability of participants. In one case, one interview was postponed five times from the initial scheduled date due to circumstances on the participant’s side. The researcher often arrived at the office to find a note of apology left with the telephone operator at the front desk. The common reason for postponement was urgent meetings either in the office or outside. This was seen as a big challenge, costly experience and disadvantage of face-to-face interview over, for instance, a written questionnaire. This problem could have been avoided if a follow up telephone call was made before the researcher arrived at the participant’s office. Media reports became useful at this time as another avenue of obtaining data related to the roles of the organisations helping the affected tourism businesses as deemed relevant to the study.

Another issue arising from most of the interviews was noise disruption, constant interruption by other employees and telephone interruptions. These factors affected full concentration of both the interviewer and interviewee and the flow of the conversation during the interview. Noise interruptions affected the quality of data as experienced during transcription and interpretation of data. The problem owed to the employees
having no assigned office (often due to their businesses still being in recovery mode), thus having the interview around the working area.

The limitations to the study are caused by several factors. First the ambiguity of response and responsiveness to the questions specifically by the tourism business employees. This issue is assumed as either lack of knowledge, pre-engaged in another activity thus lacking full concentration or unwilling to comment freely about their experiences during the tsunami. This was minimised by having the researcher using prompting questions to maximise the level of detail provided by respondents especially in areas that needed more clarification. This was done with patience and tolerance, bearing in mind that participants hold the power in withholding information, supplying partial information and possibly even calling off the interview as they decide (Denzin et al 2000, Mertens 2005, Wolcott 2001). The researcher noted this experience as a useful lesson for the future as suggested by (Patton 2002 cited in Mertens 2005, p 249) as;

the researcher should be aware that data provided by participants may vary based on the place, activity engaged in, or social variables at the time of the data collection.

Secondly the data obtained was collected from a small number of affected businesses specific to the Safata district which could in fact be unrepresentative of the larger group of tourism businesses affected by the tsunami. Whilst, this might mean that the study’s findings are true for only the small number actually studied, the use of secondary sources such as news reports, allowed the researcher to understand how her respondents’s views could be applied more generally. Secondly, the ‘richness’ and quality of data gathered from one of the interviews with organisations (that was repeated when the recorder went off just few minutes after the first interview started) may not be as rich as the first time. The amount of information given the second time was very limited and briefer than the first time due to the limited available time left for the interviewee to answer the questions. This may affect the interpretation of information.
Lastly, there was little opportunity for follow up questions regarding emerging themes due to the timing of interviews with the tourism operators. This may have affected the amount and quality of data as there was only one prospective interview with each tourism operator. Follow up emails could have helped rectify this, however with unreliable internet connection and telephone contact problems faced by the researcher during the data collection period, it was almost impossible to obtain follow-up replies.

4.9. Analysis and Findings

Analysis consisted of transcribing and analysing the interviews, using thematic analysis to review and interpret the government reports and media articles and drawing upon information gathered from site observations. The researcher transcribed the interviews using ‘word for word’ reproduction for those conducted in English making the process more time efficient and accurate. Other interviews were translated and transcribed extracting key information according to the research questions. This was done not only to get all participants views but also the expression of how they responded in order to obtain as much detail from interviews as possible (Wolcott 2001). The transcription process provided useful and deeper insight into varying degree of destruction amongst operations and the vulnerability characteristics of various operations, while reflecting upon key themes within each interview and the comparison amongst them (Wolcott 2001, Denzin et al 2000).

During the first reading, responses were assembled according to the key questions and those that provided significant meaning and specific responses to the questions were highlighted. Thus the extraction of key themes was condensed as reflected by the key questions. This thematic analysis helped draw the researcher’s attention to information gathered from site observations and media reports as well. During the second reading, a more thorough analysis took place where specific sub-themes were identified in line with key themes already identified from the first reading.
A summary of the key themes with sub-themes is depicted in Table 11. The summaries highlighted key underlying themes associated with each research question that was asked for each group. Personal names are replaced by pseudonyms for each participant and letters are used to identify tourism business and relevant organisations. Data obtained from the employed methods was categorised into key themes such as impacts, response, issues and recovery (see Table 11). Findings are largely presented using a descriptive method reporting the exact words and phrases from the interviews in order to provide a richer and more in-depth account of the respondents views. One interview was conducted in Samoan and the researcher translated the transcript based on the meaning and context of the response related to the questions asked. The relevant written information was selected out and reported from transcriptions and analysis of media reports.

Table 11: Summary of Transcribed Interviews

<table>
<thead>
<tr>
<th>Key themes</th>
<th>Submerged themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impacts</td>
<td>Booking cancellation, tourist arrivals decline, imbalance cash flow, employees lay off, environmental (beach, sea and land) damage, safety and health problems, poor water &amp; electricity supply,</td>
</tr>
<tr>
<td>Responses</td>
<td>Business closure, clean up, evacuation, repair infrastructure and communication networks.</td>
</tr>
<tr>
<td>Issues</td>
<td>Government unclear procedures of disaster relief aids, bank loan scheme, insurance, shipping freights and taxes.</td>
</tr>
<tr>
<td>Recovery strategies and opportunities</td>
<td>New building structure, business extension, new services, modification of existing services, insurance, warning systems, training and awareness programs.</td>
</tr>
</tbody>
</table>

4.10. Summary

This chapter has outlined the methodology, research design and methods used in collecting, analysing and presenting findings for this research. It has also highlighted
the rationale for the selection of qualitative methods as the most appropriate approach towards achieving the objectives for this research. This was carried out through the employment of semi-structured interviews and drawing upon information gathered from field notes and site observations. Data gathered from media sources of local newspapers and internet sources, as well as government and NGO documents were also incorporated into this study.

The next chapter presents the results highlighting the emerging key themes. It also provides useful insights into understanding the primary aim and objectives of this research (as outlined in section 4.2).
Chapter V: Results

5.1. Introduction

This chapter presents the findings from the employed methods of semi-structured interviews, site observations, government reports and media articles. The chapter begins by presenting the findings from the document review, then information from site observations followed by the presentation of results from transcribed interviews. Interview results are presented in two groups; the tourism businesses and relevant organisations. This is because the tourism businesses were asked questions that specifically affect the businesses whereas questions for relevant organisations broadly focused upon the tourism industry in Samoa as a whole. Findings from the interviews are largely presented and reported using ‘self explanation’ and translated statements. The researcher translated the interview conducted in Samoan with care to ensure she kept the true meaning of the participant’s response.

The research findings sought insights into understanding the objectives of the research as outlined in Chapter 4 (section 4.2). The main aim of the research was to examine how tourism businesses in the Safata district of Samoa (see Figures 1 and 5) are recovering from the 2009 tsunami. The objectives then covered exploring the immediate impacts on businesses, identifying the emergency responses, explaining the issues and challenges of the recovery process and examining the strategies businesses are using to recover tourism in the area and how this has impacted on preparedness programs for future disasters.

5.2. Overview of findings from Media reports

Several media websites, articles and reports from local newspapers and internet were analysed as additional sources of information. Reports from government agencies and non-government agencies directly involved with tsunami recovery efforts also provided information relevant to the research. A summary of these reports and media articles are
presented in Appendix 10. A review of the reports and articles revealed that the reports leaned more towards assessment of the tsunami effects and post-tsunami recovery plans broadly on the affected areas in Samoa and very limited amount of evaluation carried out for the tourism sector specifically.

Several assessments were carried out right after the tsunami, three of which include ‘The Early Recovery Needs Assessment’ (MOF et al 2009), ‘The Early Recovery Framework’ (MOF et al 2009), ‘The Rapid Environmental Impact Assessment’ (MNRE et al 2009). Another report, ‘The Impact Assessment for the Tourism Industry’, was also released, although a copy of this report could not be obtained. This was due to the report being unavailable at the central tourism office at the time of interview with tourism officials and a copy could not be found through internet searches. The findings of the document review were compared to the responses from the participant interviews of what is actually happening at the local level of tourism businesses for tourism recovery and the national level for tsunami response and recovery planning.

5.2.1. Emergency Response

Emergency relief assistance was received by the affected villages and victims right after the tsunami. Responses to humanitarian needs for water, shelter, food, clothes, medical supplies and health services were very prompt after the disaster (Samoa Observer, 2009). Samoan people living abroad, volunteers, medical and engineers to name a few arrived from overseas to help with clean up, evacuation of victims and provide medical and health services for the affected areas (Samoa Observer, 2009). Tremendous disaster relief assistance in different forms and from various sources also helped the victims to begin recovering. As stated in the ERF report (2009), immediate recovery plans for tourism businesses must focus on the reconstruction of the accommodation sector and related facilities, upgrading existing marketing and developing new campaigns and an immediate clean up of beaches and nearby environments.
5.2.2. Issues

In line with the interview results, the major issue faced by the tourism businesses during early recovery was the delay in getting government aid, thus most businesses were unable to start major rebuilding work. As quoted by the Otago Daily Times from one of the tourism business manager;

To be honest we feel we’ve been left high and dry...there seems to be this idea that aid should be only for the people and not businesses, but officials have forgotten that we are big employers. Get us on track and the people have money to live (Otago Daily Times, December 13, 2009).

Another issue identified during the recovery stage was the uneven distribution of relief items. This is due to the unclear recovery roles and responsibilities of authorities at all levels. Furthermore, communication break-down (AM/FM radio and TV) during the emergency period has also posed challenges in getting information across to the affected population of the government’s relief operations and planned assistance (ERF 2009).

5.2.3. Recovery Plans

It shows from the reports that full recovery of tourism from the tsunami is very likely to occur in the next 6 months for those sites that have been directly affected. Based on the ERF report’s (2009) recommendations, the national tourism office (STA) is urged to conduct a risk assessment before reconstruction or replacement of accommodation facilities can be implemented. This risk assessment must take into account relevant disaster mitigation measures to address disaster reduction and climate related risks.

Drawing upon lessons learned from the 2004 Indian Ocean Tsunami, the tourism operations are recommended to integrate safer construction techniques such as installing early warning systems and putting evacuation procedures in place. To make sure that these systems work, the tourism officials and relevant organisations need to provide
training and awareness programs for those in need, especially during the early stages of recovery (New Zealand Herald, 2009). Another recommendation pointed out by the ERF report (2009) is the relocation of tourism accommodations to areas that are further inland and building access pathways up the hills behind beaches. This would make sure that tourists have a safe evacuation place at times of disasters such as tsunami. This raises the concern of problems such as conflicts amongst the tourism operators and local residents as noted in India and Thailand after the 2004 Indian Ocean Tsunami. Tourism operations refused to obey with government directives and thus continued to build near the beaches with the exemption by the governments where as the local residents were strictly forbidden and even punished when they disobeyed these same directives (Rice & Haynes 2005).

Communication networks and media devices are also highlighted as important disaster preparedness measures to make sure that the dissemination of information and warnings on new and emerging threats are done in a timely fashion. This implies the importance of effective communication networks amongst and to stakeholders in tourism.

5.3. Site Observations

Three site visits were made for each of the four tourism businesses included in this study. The first visit took place in mid January 2010 and involved hand delivering of invitation letters for participation in the research. An informal observation focused basically on gaining first impression of the sites and the current physical status of the businesses during the recovery process. In general, the researcher spent a short amount of time on each site and communication with operators was minimal on this first visit. This was because the researcher was aware of the difficulties that operators may face and perhaps operators were not willing to share any information about their businesses. However, brief observations took place and huge damage was seen on each site including damaged buildings, rubbish still lying on the grounds, falling trees, concrete and metal piled up in bundles, empty beaches, no tourists, only 2 to 3 people doing something at the sites, gates closed and even some sites were abandoned.
The second visit was to conduct the interviews in March 2010. Contacts with tourism operators were made through telephone conversation and email messages. Observation was held after the interview for each site with the permission of the operator. A check-list (see Appendix 11) was devised for recording observations for each site together with taking photographic records. All of the four sites had opened and operated at the time of interview. As observed for the small and medium operations, there was no sign of visitors around and in the premises, only 2 to 3 employees (seemingly family members) cleaning inside and around the building, owners (husband and wife) talking with relatives around the working area and children playing outside. Construction of new beach fales (houses) (2 for the small operation and 6 for the medium operation) was seen although there was no sign of builders being presented at the time of observation.

From observation of the big businesses (A and C), abundant amount of work was seen around the complex such as repairing buildings, reconstructing facilities, cleaning and removing rubbish and rubble from grounds and serving visitors. From observation of tourism business A, a total number of 17 tourists (7 tourists were seen at the restaurant, 2 sitting by the pool bar and 6 doing activities by the beach and 2 swimming) and a total of 16 employees (one employee at the gate, 2 at the reception, 5 serving in the restaurant, 4 working in the kitchen, 3 at the bar and 1 at the office by the beach) was noted.

For tourism business C, much of the work seen was repairing and reconstructing the damaged buildings as similarly observed for business A. Only 3 visitors were seen on site at the restaurant. Two employees were working inside the restaurant, 3 in the kitchen, one at the entrance and another one (the manager) in the office. Unlike business A, some of the damaged buildings remained standing, rubbish still lying on and nearby the beach, several containers sitting by the entrance, and no clear signage for entrance or parking. The reception office and manager’s office are both currently housed in one small container by the entrance.
For both tourism businesses A & C, it was assumed that the total number of employees was higher than that observed with others working in areas such as housekeeping and cleaning not being observed. The total number of tourists on site could also be higher than that observed. Age groups for tourists seen at both sites are estimated to range from mid 30s to 60s.

The third visit and observation took place in mid April and was mainly to take photos of the recovery progress for each site. By this time a speedy recovery of the big businesses was observed as noted in things such as rubbish being completely removed and cleaned. In addition, many buildings and facilities have now been completed although construction and repair works were still ongoing, thus making a lot of noise around the compounds for both businesses A and C. More tourists were noted compare to the previous visits for the larger operations however there were still none visible for the small operation, and only 4 tourists for the medium operation as confirmed by the operator.

The following photos (Figures 16 – 19) were taken 7 months after the tsunami during the recovery phase.

**Figure 16: Images for Tourism Business A**
A view of the new re-constructed buildings and the beach. *(Source: Author 2010)*

**Figure 17: Images for Tourism Business B**

View of renovated restaurant and bar above and residential accommodation on the right with reconstruction nearly finished. *(Source: Author 2010)*
Figure 18: Images for Tourism Business C

A. Reconstruction of residential accommodation on the left still ongoing and new reception office on the right.

B. Photo of restaurant and bar on the left and photo of my son by the spa main entrance featuring a unique carved and designed of a Samoan fale using a local stone. (Source: Author 2010).
Figure 19: Images of Tourism Business D

A. View of the reconstructed reception office

B. Photos of newly rebuilt accommodation fales (Source: Author 2010)

5.4. Interview Results from tourism businesses

Semi-structured interviews were conducted with three tourism operators and one employee of the four tourism businesses in the Safata district that had accepted the invitation to participate in this research. Interviews were held on site for each tourism
business and lasted from 30 minutes to 1 hour and 45 minutes. The scope of operations for participating tourism businesses ranged from accommodation (large operations - tourism businesses A & C) to a surf business (medium operation) and a bar and restaurant (small operation). Responses from three interviews are presented using ‘self explanation’ while responses for the interview that was conducted in Samoan were translated in English (see also Table 10). Pseudonyms were used for the respondents and letters were used to identify tourism businesses.

5.4.1. Impacts of tsunami

The question focused on the immediate impacts of the tsunami on the business after the tsunami. The researcher used prompting questions, for example, asking them to explain what sort of impact they encountered and the extremes of such impact to the business, to encourage the respondents to elaborate more on their responses. All respondents point out in the beginning of their response that it is very difficult to explain how they felt after the event. This is important to note in order for the researcher to gain a first impression and an understanding of the psychological effects and that respondents are still traumatised from the disaster. This is evident from respondents’ responses to the first question. One respondent explained;

*Oh! the tsunami was a life-threatening and stressful experience in many aspects. After the tsunami, the business came to an abrupt end and cash flow came to an abrupt end, everything was in a full stop. It was such a nerve-racking moment for our family especially that we lost one of our very strong co-owner[s] for the business. As you can see, the place is still in a mess with ruins still seen on the grounds and we are trying our very best to bring back the business to its old standards or even better* (Dora).
Along the same line, another manager explains how she felt;

*the tsunami was a very traumatic experience and, having an emotional attachment to this place as the manager I cannot express how I felt when I came back here after the tsunami and saw the place. It was totally turned upside down, totally demolished and I felt numb, disbelief and very shocked. It just happened so fast that we couldn’t save anything. We lost everything that we worked for and it’s just heart breaking to witness the massive destruction of everything we had (Fay).*

Another respondent states his view;

*the damage caused by the tsunami is unexplainable and I have no words to tell you how I felt after the tsunami…everything was damaged, the restaurant and bar were destroyed, only the floor was left with posts but everything else was gone, but luckily no one of my family was dead (Latu).*

Similarly, the response by this employee was translated as follows;

*the tsunami happened instantly and was very strong but luckily all tourists returned to Apia in the evening and our family were sleeping in our other house far away from the business, only the security was at the site when the tsunami came, so we are lucky to be alive and that is the most important thing (Tai).*

It appears that the intensity of impact varied amongst the tourism businesses. The small-scale operation experienced minor damage whereas the medium and big businesses suffered serious destruction. This could be owed to the nature and size of businesses in terms of building structures, furniture, equipments and capital loss. This reflects the length of time to recover and reopen for some businesses after the tsunami. For
example, the bar and restaurant and surf businesses (B and D respectively) reopened after two months while the big operations (A and C) took 5 to 6 months to reopen.

Employees being laid off appeared to be another immediate impact on tourism operations and as two respondents agreed, it was a difficult decision to make. The majority of employees from the village communities lost their jobs because of the businesses being closed down, thus employers could not earn enough to pay their employees’ wages. While big businesses based their redundancy decision on the level of skills required, the decision for smaller businesses was more family-based (keeping family members and letting go of village members). The following extract is from an interview with Dora;

_We were forced to make difficult decisions and it was a daunting task especially when it came down to laying off the employees, we had to make sure that we kept our key staff and let go of the others until later when the business is reopened. What really worried us was losing our employees to other hotels as people from the village really need the money for their families and some of them are the only bread winners in the family, and I know they really need the money to assist their families after the tsunami, but we had no choice but did the right thing to save the business from spending unnecessary expenses._

Latu supported this statement by saying,

_right after the tsunami I had a talk with my employees and I explained to them about the financial crisis now faced by the business and I can’t keep all of them until such a time when the business reopens again. I told the village people who worked here that it’s very hard but I have to let them go and keep my relatives for I have no money to pay their wages because no tourists will come until the business is recovered and my relatives will work without pay and they agree._
**Environmental damage**

Only a few comments came out in the interviews about the damage of the environment as most participants were more concerned about the physical damage caused to facilities and properties. The two comments that came out were about the rubbish from the business and other places that was swept up by the tsunami waves and was left on the beach and grounds. The bad smell from dead fish lying on the grounds and **dead bodies** assumably buried in the sand also caused major concerns amongst the participants. As quoted by Fay;

> the tsunami has greatly damaged the environment as was seen on the beach and the grounds around and within the business area...rubbish, of different kinds, furniture from the hotel rooms, TVs, ovens and other sorts of equipments were piled on the ground and beach...also rubbish from elsewhere was dumped on our grounds and the bad smell from the rubbish, dead fish, and dead bodies, was really a serious concern about any disease that might follow.

A similar statement was made by Latu;

> the beach was totally damaged by rubbish...the dirt and mud from soil erosion changed the colour of the white sandy beach we used to have...even the formation of the beach was changed...some of our surf equipments were thrown over to the beach and boats too.

Destruction of infrastructure was also noted in broken pipe lines, road blockage, broken telephone lines and internet disconnection, poor water supply and electricity outage for almost a week after the tsunami. As Dora explained;

> I am sure all the tourism businesses around this area suffered the same problems of broken telephone lines, internet disconnections...we lost all of
our computers, land line telephones and we did not have any water and electricity for almost a week, but lucky we had support from donors and through government disaster relief assistance that supplied tanks for water storage.

A translated statement from Tai supported this, when she said:

the business suffered similar loss and damage in terms of equipments and furniture as the rest of near-by businesses except that the house we live in was not damaged and part of the bar and restaurant building...we only had cell phones for communication to other businesses and customers for almost a month...we had no power and water for almost a month but we were able to get help from our families nearby and items distributed from government agencies after the tsunami that helped us cope with the problems we faced.

As shown by the responses, environment damage and social problems apart from economic loss can be of serious concern, not only for the affected tourism businesses but also the communities involved in times of disasters. To an extent, the impacts can be too severe for the affected tourism businesses to handle on their own without seeking, and receiving help from the government and local communities as reflected in the above responses.

5.4.2. Emergency Response

One of the first emergency responses amongst the businesses was tourists’ evacuation to safer places and making sure that staff were safe. As one respondent explained;

after the earthquake, I went to check the tourists and staff if they were safe, and suddenly I looked at the sea and saw something unusual, the sea water was receded back, and I knew it was going to be a tsunami. I quickly call the staff on duty that morning to get tourists out and bring them to the car
park. I ordered the boys to bring the cars to the car park and I was able to get most of the tourists out safe but we lost one female tourist, she was panic and got caught in the waves and her husband couldn’t hold on to her any longer because the waves were too strong (Fay).

Another respondent stated;

I was quite calm after the tsunami knowing that all the tourists were safe and the first thing we focused on right after the tsunami was to take the tourists to another hotel in town because we were worried that another tsunami would come. For the staff who came to work on that day, I told them to go home and come back after two days because we were not willing to come back here (to the business) after we lost a family member (business co-owner (Dora).

Another emergency response within days after the tsunami was the impact assessment on the businesses to identify areas that were damaged. As Latu commented;

after three days, my brother and I came to check the things that were damaged and I noticed that the surf shop, the grocery shop, all six accommodation fales (houses) were gone, and all canoes were gone, meaning the business was completely destroyed with nothing left...the only thing left on site was the concrete foundation of the reception office.

In a similar vein, Fay stated;

I came back here (to the business) after the tsunami, and I could not figure out the exact locations of different facilities because it was all covered by rubbish of different kinds and falling trees blocking the way in. I went back home and came back after two days and did a check of things that were gone and damaged. There were six residential houses, restaurant, bar, spa,
souvenir shop, reception office were all gone...I can say that 98% of the business was gone, as you can see there is still construction going on and it will take a long time for the business to completely recover.

It was gathered from the interviews that all businesses responded similarly to the impacts. The similar reactions by tourism operators after the tsunami show the skills of good management to act and respond accordingly without proper and formal planned actions for disasters. This implies that to some extent, some tourism businesses can still able to cope and manage disaster impacts without formal disaster planning in place.

5.4.3. **Issues arising from emergency response**

Unclear financial assistance from the government seemed to be the main issue faced by all of the businesses as they tried to cope with the impacts and recovery of business. All respondents agreed that the procedures to access the grants and assistance offered by the government are complicated. For instance one respondent said;

*procedures of getting funds from government is very complicated, we had to fill in heaps of forms and submitted all supporting documents to justify our request, but the government team came around after the tsunami conducted the assessment and I thought that was enough evidence of the destruction and the need of financial assistance (Dora).*

Another respondent replied similarly as;

*I am very frustrated and angry with the long wait before we got the message that there are grants provided by government, but we are unsure how much we are entitled to or how we get access to those funds, and how soon, because we have already gone ahead and borrow huge amount of money from the bank, hoping that there will be subsidies from the government, but it seems nothing (Fay).*
It seemed from the responses that businesses faced tough decisions about borrowing money with the hope of receiving free incentives from government. The lack of clear explanation and consultation between tourism operators and government bodies seemed to cause confusion and complexity on the part of operators;

*we had to wait several months not really know what assistance we would get from government and most disappointing part was that I thought there would be a lot more support from the tourism organisation, but there was no communication whatsoever so we went ahead and borrow from the bank hoping that we would get subsidies from later but they have very confusing criteria (Tai).*

Another stand out issue from responses was about the insurance of businesses. Two respondents explained that their businesses were covered for cyclones and fire but not for tsunami, thus causing a full claim of insurance an issue. Another two businesses accepted that they took the risk of not insuring their businesses; hence they had a minimal chance of borrowing much from the bank to restart their businesses.

Moreover, two respondents blamed the government for unclear information given to them about getting free tax for materials shipped from overseas. As reflected in the following responses;

*At first there was a message that all tourism businesses affected from tsunami will receive free tax on freight and shipping. However, later on another announcement came that the customs department disapproved the request from government, and allowed only 10% discount on tax and other costs for bringing in materials...it is just frustrating (Latu).*
Another respondent stated;

*this is very unfair treatment from government knowing that we are the backbone of the economy, we work hard for the image of this country, we help the community, we employ local people, we contribute to the church and look after the environment but Samoan people have to plea and beg to get assistance from government, but the ‘palagi’ (foreign) owners got all the good treatments but the money they earn go back to their country (Dora).*

In general, respondents were not too troubled on the issue of insurance as they believed it was their fault for assuming there would never be any tsunami so they never bothered to include it in their insurance coverage. All respondents showed concern about telephone lines breaking down, internet network disconnections and late re-installment of power and water. However, they agreed that these infrastructural problems are not easy to repair in a day and the organisations directly involved in these areas were doing their best to install these back as soon as they could.

### 5.4.4. Recovery

The tourism businesses were asked the same question of what strategies and opportunities they are using to recover from the tsunami. Again all respondents agreed the strategy that directed them into recovery was to rebuild the business as soon as possible. However, different reasons were given when they were asked why they wanted to rebuild the business as soon as possible. While one business focused on getting tourists back, for instance, Latu said;

*because I have been getting emails from the tourists wanting to know when the business will be opening again, and that really encourages and pushes me really hard into getting the business back, knowing that tourists will come back again.*
Another was based on a family oriented reason, Dora explained;

the strongest motive behind rebuilding our business is because we lost a founding member of this business, and this is a chance for us to rebuild the business as a tribute to her and memory of all the hard work she had fought for and done right from the early start of this business. Besides our family made a huge investment into this business financially, mentally, physically and psychologically, so somehow we need to keep going because we know we have to improve the standards that this business had known for.

It was also found that businesses were positive towards rebuilding as an opportunity to correct the mistakes they had made in terms of their services and building measures;

rebuilding is an opportunity, because I know we had done things wrong and we thought that one day we would pull it down and rebuild, and now is the opportunity to build a better business by introducing new levels and standards to the services, facilities and experiences for the staff (Dora).

All respondents agreed that new building structures and design is a way forward using stronger building materials. In doing this, they consider complying with building measures for disasters provided by the Samoan Ministry of Works, Transport and Infrastructure as very important. As Fay stated;

this is a good opportunity for us to change the things we wanted to change long time ago, so now major changes are taking place. We are using stone walls instead of wooden and cement walls as before, we are not using glass doors for the residential rooms on the beach anymore, there is extension of the bar and restaurant currently undergoing and we have relocated the reception area closer to the entrance and where is quieter than before.
Another notable strategy and opportunity that tourism operators have considered is the insurance. There was willingness showed by businesses about insuring the business after the tsunami unlike before the tsunami when business insurance was not held by all businesses involved in the study. This indicates that for the operators, the tsunami was the one of the most unlikely kinds of disaster ever expected to hit the country. According to Fay;

*the business insurance only covered cyclones and fire because they happen very often, but not tsunami because we never thought it would happen, besides it never happened before but now it happened, and we are quite happy that it happened so that we become more prepared for the future.*

Tourism businesses were also asked about their network with the national tourism organisation and other relevant businesses in the tourism industry. Feedback from big operations showed;

*the lack of support and no communication with the national tourism organisation after the tsunami, that was another disappointing part because I would thought that there would be a lot more cooperation amongst us (tourism businesses) and the national tourism organisation (Dora).*

A similar comment was made by Fay;

*the hotel association did their part in the impact assessment but the national tourism organisation should have pushed it forward to the government for funds, but we waited several months without any knowledge of what was going on, but I hope this would be a chance for a better networking amongst all operators in the tourism industry and national tourism organisation.*

In general, the impacts of tsunami did not have much effect on business operators’ decision to relocate further inland. The common response gathered was that the
marketing advantage of the business is its current location. Tourists enjoy doing activities around and on the beach such as swimming, snorkeling, surfing or even just sunbathing on the beach;

if we change the location, then we might not receive the same type and number of tourists we used to get before the tsunami. Also the nature of our services and activities we cater for are closely linked with the sea and beach, so we never considered moving to inner lands or changing the location (Dora).

Tourism businesses were also asked about their marketing strategies to attract the tourists back, and all respondents seemed clear of their promotional tools such as discounts for the first few months, special rates for their regular customers and extra discounts for bookings more than 5 days. While tourism businesses focused on marketing activities for their businesses respectively, the tourism organisation leaned towards activities that would boost the tourism industry as a whole. For example, one of the participants from the relevant organisations contended that tourism businesses whether they were affected or not will be encouraged to adopt a new marketing brand ‘green tourism’ emphasising the significant values of the social, cultural, religious and environmental aspects of the fa’aSamoa.

The hoteliers association is heading towards encouraging owners not only the affected ones to build or rebuild tourism using the fundamental principles of ‘green tourism’ depicting elements of the fa’aSamoa as a guideline. This would encourage them (hoteliers) to develop tourism using environmental friendly materials that would at least protect them from serious damage when disasters hit (Sella)

This idea of ‘green tourism’ is in line with the strategies of ‘green tourism’ promoted by the South Pacific Travel for marketing purposes of tourism in Pacific islands. These strategies of ‘green tourism’ as explained in section 2.5 can assist the affected tourism
businesses to understand and respond to the impacts of climate change as an effort towards reducing risks and preparing for future disasters (TRIP 2007). It is important for local tourism businesses during their recovery plans to become aware of climate change and its consequences of causing natural disasters in Samoa. The ‘green tourism’ strategies would provide tourism owners with the opportunity of rebuilding tourism into a well thought out development that incorporates environmentally sustainable measures to protect their businesses against future disasters and mitigate their effects.

Help from the national tourism organisation (STA) and SHA in updating the media about the positive progress of recovery for the businesses greatly helped as advertisement for the affected businesses. As stated by Fay;

*help has been offered by the STA and SHA to update the information about the recovery progress of the affected businesses as well as promoting the businesses to overseas markets as part of their post-tsunami marketing campaigns.*

In addition, tourism businesses are supported by the national tourism organisation (STA) to look for other available sources of funding for rebuild their businesses. The overall reaction from respondents for business recovery is positive as reflected in their responses. Despite the severity of impacts and issues that challenge the quick recovery of businesses, considerable determination, commitment and willingness to resume and reopen has been reflected in the interviews.

5.4.5. **Preparedness for future disasters**

Respondents were very positive about developing preparedness strategies and mitigation plans for future disasters with assistance they received from relevant organisations such as the Disaster Management Office and national tourism organisation (STA). All respondents agreed that installment of warning systems and alarms are valuable and important parts of these preparedness and mitigation plans despite the fact that they
believe to installation to be time consuming and expensive. All respondents commented that this tsunami is a very useful lesson as they see it as a wake-up call to become more aware of the vulnerable nature of their business in terms of location and preparation. Proper training and awareness programs for both staff and visitors were also noted as important aspects of the plans;

we will definitely develop a disaster plan, not a complicated one but simple and easy to understand plan for future events, alongside we will do trainings on evacuation drills for staff and visitors, install alarm systems and prepare evacuation information booklet for each guest room. I will seek assistance from the Disaster Management Office (DMO) to develop this plan, and I am confident that we will be alright (Fay).

Also another respondent stated;

staying alert is important for staff and visitors, so our short term plan right now is to install a warning alarm and enforce evacuation trainings, drills and awareness programs for our visitors and staff, and our long-term plan is to develop a comprehensive disaster plan when the business is up and operating successfully in terms of profit earning (Latu).

A very interesting response came from one of the respondents:

I think the key to making a plan work is the knowledge of your own business environment as well as practice and experiences, I can easily develop a plan but if I don’t do what the plan says then it’s a waste of time, therefore, what is important to me is a day-to-day practice and sharing of skills I have with the staff is important at this stage, but I am not saying that I will not develop a plan, I fully support to have a plan in place because I may not be here at the time of a disaster (and) at least the staff are confident (Dora).
All businesses were positive and willing to insure the business, however, despite this willingness, a concern was raised by one of the small operations where some of their facilities using local building materials do not meet the insurance company criteria, thus they are only qualified for a partial coverage (e.g. equipments, vehicles, bar stock);

> *the insurance company came to evaluate my business and they told me that I can’t include the fales that use Samoan building materials as well as my canoes made out of Samoan trees but only the fales made of concrete, so I’m a bit sad about it, but I have faith in God the business will do fine (Latu).*

In general, businesses showed positive feedback about preparing for future disasters by developing strategies of how to avoid or minimise the impacts that may cause from a disaster. It appears that in the aftermath of the tsunami, challenges were faced by both local businesses and the national tourism organisation in terms of unclear communications and information about recovery assistance that the affected tourism businesses could receive. The results also show that none of the tourism businesses have a formal disaster plan in place; however most of them are willing to develop a disaster plan or even informal strategies and procedures to cope with future disasters.

### 5.5. Interview Results from key informants of relevant organisations

Two interview sessions were held with key informants in early March 2010 from two relevant organisations that accepted the invitation to participate in this research. The key informants represented the central tourism organisation and the hotel association (see Table 10). Both organisations perform activities and roles pertaining to tourism development and management in Samoa.

#### 5.5.1. Impacts

The participants point out that a huge impact of the tsunami was evident by the massive cancellation of bookings causing a dramatic decline in tourist arrivals for two months
after the tsunami. There is also an impression of low demand for support services such as car rentals, restaurants, bars and cafes as a result of no tourists after the tsunami. As Sella explained;

*the visitors arrivals was expected a decline by 4% in 2009 as forecasted by the assessment conducted by the Kolone Vaai Associates (KVA) consultancy firm for the tourism industry right after the tsunami, however after December 2009, we found out that the year closed off with 6% visitor arrivals increase.*

When Sella was asked to explain why and how the 6% visitor number increase came about, she explained that;

*after the tsunami lots of Samoan people residing overseas came over to help their families and communities, not only that but the medical people, helpers and generally tourists from overseas countries that have offered their help in the clean up and reconstructing the country, and most of others were volunteers, thus the visiting families and relatives was very high followed by ‘others’ which clearly (were) those who came in aid of the tsunami.*

Hanna supported this statement by saying that;

*mass cancellation of bookings came straight after the tsunami, and much of these bookings were confirmed before the tsunami but all cancelled not only the affected areas but all hotels in Samoa, and to me it was a very devastating experience knowing the huge lose of tourist receipts and arrivals as businesses were heading towards their peak season of the year.*

Both respondents blamed the media for incorrect messages being sent out right after the tsunami without seeking any consultation with the tourism organisations of the degree of damage caused on the tourism industry. As Hanna said;
the insensitivity and emotional problems in the media coverage of the tsunami have a huge impact on businesses that were not affected. The profound misleading information released on the internet and newspapers really annoyed me and I had to reply to the numerous emails that came in the day after the tsunami. So I call the radio that I want an interview and I sent a quick email to our marketing representatives in New Zealand, Australia and USA to please do something and send out a message to say that not all tourism businesses were damaged.

Many tourists had the wrong perceptions and misinterpretations of media messages about both Samoa and American Samoa. Both respondents complained about the insensitivity and incorrect messages sent out by the media and which greatly impacted upon those businesses that were not affected;

I have to say that all hotels in town and on Savaii islands lost their bookings because of the incorrect messages sent out by the media. Only tourism businesses on the south coastal area were destroyed but the rest were still operating, but the incorrect and inconsiderate information released by the media has caused the massive cancellation all throughout tourism in the country(Hanna).

Another informant stated her concern;

media coverage of the tsunami could have been done in a more collective effort amongst the tourism officials and media, and the tourism organisation did its best to collaborate with the media in updating the information and as of the end of December last year, tourists started to come back, and in early January we had a cruise ship landed, and again in February, so it’s a good sign that we are gaining tourists confidence in coming back to Samoa (Sella).
Later on, the same informant said that negative messages sent by media could be successfully overcome by regular contacts between the tourism officials and media whereby the tourism officials provide up to date information on the recovery progress of tourism in order for the media to update its own information for the public viewers and tourists overseas.

Surprisingly, a similar situation with the relevant organisations where little came out in the interviews regarding the environmental damage despite the huge devastation of the environment resulted from the tsunami. The one quote that came out was;

\[
\text{there was not only rubbish caused by the tsunami, but the rubble and waste that has been dumped somewhere was scooped up and carried by waves adding to the bad smell and environmental ruin, and this was another way of telling the Samoan people to clean up their mess and stop dumping it on the environment, everyone should be mindful of their rubbish and the damage they cause on the environment (Hanna).}
\]

5.5.2. Emergency Response

A common first emergency response by both organisations was evacuating tourists from affected areas in collaboration with other government organisations and NGOs. There was also an impression among the informants about the spirit of unity and caring amongst the Samoan people attributed to emergency response aftermath;

\[
I \text{ was amazed to see the community people from nearby villages and all over Samoa being the first ones there at the scene to help and support the victims, giving food, water, clothes and search for lost members even before the volunteers and helpers arrive from overseas (Sella).}
\]
Hanna supported this;

the outpour of help from our local people and overseas was incredible...we got help from overseas agencies through the government for the affected businesses in sorts such as temporary tents, containers for storage, water tanks, tarpaulins and many other things I can’t name them all. Also the governments overseas have helped Samoa to rebuild tourism through quite a big amount of disaster relief grants and aids.

The two organisations were asked about their immediate response after the tsunami and participants’ comments were common.

first of all, members of our staff went to the affected site on the second day after the tsunami to help search for missing tourists and bring those who were still at the sites to the hotels in town...we had few cases where tourists were refused to come for they had to search for their missing partners or families, and we were happy that they were staying with the owners of the hotel they were staying before the tsunami or other tourists were staying with the church ministers of the village (Hanna).

Similarly, Sella responded;

our (organisation) first priority was to get connected with the affected business on the same morning the tsunami hit to check if they were badly hit but we couldn’t get hold of those we contacted, so went with four other members of the senior staff in the afternoon, but we couldn’t get to the affected sites because of the road blockage especially the Lalomanu area (one of the affected areas), but we managed to visit the Safata area (study area for this research). We helped evacuate one of the tourist’s dead bodies from one of the sites and we brought a few tourists with us to town late in the afternoon.
As gathered from the participants, this emergency response went on for almost three weeks in searching, evacuating and rescuing the tourists from the affected sites. It also shows from the interviews about the ability of the local people to cope and the capacity of the affected communities to band together when they need to and turning rough times into good by offering shelter to tourists and help search for the missing ones.

5.5.3. Issues

Like the tourism businesses, relevant organisations faced several issues that challenged their decisions and plans for tourism recovery. Both informants stated that unclear communication amongst members of different organisations involved in the ‘emergency teams’ caused delays in distributing financial help to the affected tourism businesses;

*we had internal issues in getting our part of the job done, and I don’t blame the tourism operators for their complaints. It was not an easy task since it was the first disaster of this kind, and we had to make sure that we develop criteria to ensure that disaster aids allocation to affected businesses is done in a fair manner (Sella).*

Hanna supported this statement;

*it took a lot of time and patience in dealing with issues after the tsunami, and a lot of pressure came from the affected businesses as I understand they need to know whether they would be getting any financial assistance and when they get it, but it’s not an easy process for we can’t force our way in to government’s decision for they have their own criteria and procedures of dealing with disaster aid relief grants.*

Again, concerns were raised about the media and the impact caused upon the tourism industry as a critical issue to be dealt with. In general, both respondents agreed that
tourism officials must provide the media with up-to-date and consistent information so that accurate information can be released about the affected areas. This requires the tourism officials to have open and constant communication with tourism operators to assess their recovery and to ensure that information released to the media is consistent, accurate and up-to-date.

5.5.4. Recovery

Respondents pointed out several strategies for consideration during tourism recovery. One of the strategies is the reinforcement of accommodation standards in terms of quality;

we had developed criteria for accommodation standards but did not work well in the past years, and now is the golden opportunity to push it forward to the operators while they are rebuilding, we want them to rebuild a lot better than before in terms of quality and services for local and international visitors (Sella).

Hanna extended her statement to the active role that tourism organisations should play in pushing or promoting the accommodation standards to operators;

we need to regularly consult with operators during the recovery stage to ensure that they understand these standards and we must acknowledge their effort, we can’t just throw them the accommodation booklet without taking them through the process, otherwise it will be a waste of time.

Another strategy that one of the respondents pointed out was strengthening awareness in tourism promotion;
the tourism organisation needs to carry out ‘road shows’ from time to time to affected areas to make sure that operators are well informed of the organisation roles and let them know how we can help them (Sella).

She later mentioned that the tourism organisation has just launched an annual ‘Samoa tourism exchange forum’ for the private and public sector to exchange ideas of how to move forward with tourism planning, development and marketing. With marketing activities, one of the respondents stated;

the hoteliers association is currently screening a new marketing brand ‘green tourism’ for hotels that strengthens the cultural concept...maintain that identity which can be built into a brand for Samoa, and supply the products that display that, for example having little green notecards in the room for visitors to use if need cleaning or changing linen, that will save time from daily cleaning (Hanna).

Both informants were asked about enforcing business insurance into tourism plans, and feedbacks were slightly different amongst respondents, with Sella pointing out;

every business has to be insured to ensure long term continuity of the business, it is a sensible thing to do, however, it is not a priority in the tourism development plan at the moment and I guess it will never going to be.

On the other hand, Hanna stated;

if Samoa tourism wishes to become a well equipped industry for future disasters, then I suggest that incorporating strategies for business insurance is a priority of the disaster plan bearing in mind there are aspects specific to the nature of different tourism businesses that the plan can not touch, so as
long as we highlight in the plan as an important component, then business will make an effort to be insured, knowing that it’s for their benefit.

It is apparent from the interview responses that business insurance is more likely subject to the willingness of the tourism businesses. This implies that the accommodation standards that the tourism organisation tries to push forward to operators are somehow different from the building measures that the Ministry of Works, Transport and Infrastructure (MWTI) are imposing on operators. For instance while the STA encourages unique Samoan open building structures that use Samoan building materials for the beach fales (houses), the MWTI enforces the operators to build using close-in structures which use concrete. This difference could cause a problem for some operators in getting a full insurance coverage. What this research would like to see is a plan that incorporates the tourism accommodation standards and building measures in line with insurance building criteria. In addition, a thorough assessment of how accommodation standards and building measures are implemented during the recovery period is crucial.

5.5.5. Preparedness strategies

It was gathered from the interviews that tourism organisations are more involved in developing risk management plans than specific disaster planning or management. As one of respondents stated;

we don’t have a specific tourism disaster plan at the moment, but we have ‘risk management’ as an integral component of the tourism development plan which stipulates means of disaster awareness and preparedness (Sella).
Hanna mentioned;

currently, we are using the disaster plan developed by DMO for Samoa to facilitate the recovery for tourism, but I see the great need for the tourism industry to develop its own disaster management plan to address specific needs of the industry in the future.

The respondents were asked of their roles in preparing the tourism industry for future disasters and they provided similar responses;

we will provide help in training the operators on how to develop their disaster plans through regular consultations and workshops in collaboration with other organisations as well as the tourism industry members (Sella).

Hanna added to this statement by saying;

it is part of our role to help the operators develop their disaster preparedness plans, and we can only give them help if we involve a range of representatives from other relevant organisations that are directly involved in areas of disaster management such as the Ministry of Environment and Natural Resources, the MWITI, DMO to name a few, so you see it’s more of a collaborative effort not just the tourism organisation, we also need to involve the tourism industry in planning what suits them best in the future.

Hanna later mentioned:

What we do not yet know is whether and to what extent hotels and other facilities have developed their own plan after the disaster. However, we do have some evidence that informal systems of warning and evacuation may work, so developing comprehensive disaster management plans won’t be hard.
From observation of the participants’ views about disaster preparedness, it shows the importance of commitment by both the tourism operators and tourism organisations in developing specific tourism based disaster planning for the tourism businesses own benefits with emphasis on the safety of their properties, staff and visitors. It also underlines the open-mindedness of the tourism industry towards disaster planning, and it could enhance their presence and standing in the tourism community through regular training and education on disaster preparedness and mitigation.

5.6 Summary

This chapter has reported the results of this study. The results of the research indicate that tsunami has impacted upon tourism and communities in a phenomenal way that was never expected. A complete impact assessment of the tsunami on tourism would help indicate the degree of severity and the extent of capacity, strength and resilience that helped tourism businesses cope with the disaster. Results also show that following the disaster, challenges and issues arose in relation to the recovery and reconstruction of tourism businesses. One of the notable issues lies in the unclear communication and information amongst those directly involved in organising disaster relief assistance as well as the complicated procedures for accessing grants and financial assistance supposedly available for tourism recovery.

It is also clear that the tsunami has provided the opportunity for the tourism businesses to improve their services in terms of quality and range. Tourism businesses also realise the importance of developing proper strategies and plans for future disasters. This requires a fundamental understanding of the installation of warning systems, alarms, provision of training and awareness programs for visitors and staff about evacuation procedures and keeping informed with up-to-date information about new emerging threats. It is also important that tourism businesses build confidence in practicing and reviewing their disaster strategies and plans from time to time and be able to identify the risk and cope with it immediately.
Furthermore, the results show the proactive role of government agencies and NGO agencies in communicating with affected businesses during the emergency period and early recovery stage after the disaster. The results also suggest that effective implementation, monitoring and evaluation of strategies and measures as listed above would be a more productive way of getting appropriate and sufficient assistance to those affected by a disaster in a timely fashion.

The following chapter will discuss the results in line with the literature in an attempt to provide useful insights into the research topic. In doing so, it examines the results findings according to the available literature on how the tourism industry in Samoa responded to the impacts caused by the tsunami and how to cope with forthcoming disasters.
Chapter VI: Discussion & Recommendations

6.1. Introduction

This chapter discusses the research findings with respect to the literature on tourism and disaster planning and management. It begins by investigating the impacts of the tsunami on the entire tourism industry of Samoa with cross reference to the tourism businesses involved in this study. The chapter also includes discussion of tourism emergency response to the impacts including the relief efforts undertaken by the government agencies and international communities and agencies. It goes on to examine the strategies and plans that tourism officials, tourism operators and relevant organisations are using to recover and reconstruct tourism. The chapter continues on to discuss the issues and challenges that have emerged from the recovery stage from both the tourism industry and government perspectives and finally to investigate the preparedness programmes and plans tourism operators and relevant organisations might put place for future disasters. This chapter also presents recommendations on crucial points as they arise from the discussion.

6.2. Disaster Planning

As indicated in the findings, the process of approaching disaster planning evolves in a circular process starting from assessing the impacts, through response to the impacts followed by recovery and on to mitigation and preparedness programmes for future disasters. However, in most cases, King (2006) stresses that communities follows a circular process starting from mitigation through response to crisis followed by recovery. It is argued here that different communities experience disasters as different stages, thus may have different resilient in recovery or mitigation and may or may not have disaster planning in place before the disaster hits. For instance, as gathered from the findings, most tourism businesses affected by the tsunami in Samoa did not have any mitigation and preparedness plans before the disaster, therefore their disaster planning
and management cycle would have started with assessing the impacts when the tsunami struck, through to the other stages of the disaster planning cycle.

A similar case was noted by Faulkner et al (2001) in their research of the Katherine floods in Australia, as there was “no destination wide disaster plan in place prior to the floods and no tourism specific plan in place and little coordination occurred between the tourism industry and emergency services” (Ritchie 2008, p 337). In contrast to the planning cycle recommended by Murphy (1994) in the literature review chapter 3, section 3.4.3, the cycle in Figure 20 illustrates the approach taken by most affected tourism businesses in Samoa after the tsunami. According to Murphy (1994), the disaster planning cycle operates based on ‘perceived’ aspects of the disaster or predicting what might happen when the disaster hits. The process starts from the assessment or mitigation stage whereas in the case of tourism businesses in Samoa, the cycle commenced from the starting point of the ‘actual’ danger or impact of the tsunami followed by the response taken after the disaster hits. The lack of planning prior to the tsunami meant that as a result of the 2009 event, planning is in response to actual events that happened rather than being pre-emptive, that is planning based on perceptions of possible disaster as postulated by Murphy’s cycle.

Ideally, the cycle emphasises a strong linkage between the affected tourism businesses, government and relevant organisations as the tourism businesses move from one stage to another especially in the recovery, mitigation and preparedness stages. This is because the tourism businesses may be resilient in response or recovery or mitigation but they are not necessarily good at all of these things (Buckle 2006) especially, as in Samoa, with the situation of the tsunami which they had never experienced before. Therefore, it was found out that disaster planning and risk reduction for tourism in Samoa now requires a collaborative effort and concerted action by a wide range of stakeholders including government and non-government organisations, technical and academic experts and tourism officials and operators (UN 2007).
6.3. Disaster impact on Samoa tourism

This research has explored the various impacts of the tsunami upon the tourism industry in Samoa and relative responses undertaken by the affected businesses. As derived from findings in the previous chapter, the majority of research and assessment undertaken after the tsunami broadly covered varying aspects of social, economical and environmental impacts of the tsunami on Samoa as a means to identifying strategies for recovery of industry sectors and local communities affected by the tsunami (ERF 2009). A report on the impact assessment for the tourism industry could not be obtained from the central tourism organisation at the time of interview even though the participant explained that the report focused on identifying and investigating areas that were damaged by the tsunami and developing strategies for their recovery.

However as gathered from other reports (IMF 2010, OCHA 2009, IFRC 2010, UNDP 2009, ERF 2009), the tourism infrastructure in the south coastal areas of Samoa was
severely destroyed by the tsunami causing huge impacts upon tourism earnings, capacity, demand patterns and economic activity. For example, the loss in tourism earnings for the year period 2009/2010 is expected to vary between US$ 15-30 million which accounts for an approximate 3.5% of Samoa’s GDP for the year 2009/2010 (IMF 2010). Also about 25% of tourist accommodation facilities located on one of Samoa’s most popular destinations has been destroyed (UNDP 2009). The demand pattern also declined in two broad tourist categories, holiday-makers and visiting friends and relatives (VFR). The tsunami struck after the peak season, June to August for the ‘holiday makers’ but before the festive season, December when the majority of ‘VFR’ is expected to arrive (OCHA 2009). Based on the post experience of the India Ocean Tsunami, the attractiveness of Samoa as a tourist destination may take several months (or longer) to gain tourists confidence to return.

From the researcher’s observations, tourism operators had no expectations of the tsunami and they generally seemed unprepared for disasters due to the lack of pre-warning information and limited understanding of the potential risks and hazards that could possibly threaten the business. This is supported by a statement made by one of the participants that

*most tourism businesses did not prepare for any tsunami even though they understand that earthquake usually associate with a tsunami (Sella).*

Based on a review of the Indian Ocean Tsunami, the severity and degree of damage and loss experienced by the Samoa tourism industry is similar in both social and economical terms (UNDP 2009). For instance the dramatic decline of tourism income resulted from high number of booking cancellations. The loss of income was also evident in low demand for support services such as tour operations and travel agencies. The majority of laid off employees for the affected tourism businesses involved in this research are from the local village and community, thus these employees could not provide for their families needs as they lost their jobs unexpectedly. As Ritchie (2008) states, a local
community, especially in a developing country that is heavily reliant on tourism, could face major socio-cultural impacts from disaster impacts upon tourism.

Furthermore, the large impact of the tsunami upon the environmental resources in the affected tourism areas also severely impacted upon the local residents’ livelihoods which were reliant on natural resources (fishing, farming and planting) for living or supplying produce for tourism. For instance, one of the tourism operators commented that;

> the business heavily depend on the village people to supply local produce such as vegetables, handicrafts and fish for the business before the tsunami, but after the tsunami there were no more trading between the business and local people due to business closure and I’m not sure if the village people will be able to supply these produce when the business start operating again, otherwise we will have to pay extra expenses to buy from town. I also feel sorry for these families for not being able to earn what they used to before (Fay).

From their study of tourists’ perception of natural disaster in Vanuatu, Meheux & Parker (2006) state that in particular, tourism businesses that rely heavily on the local provision of produce may find it economically difficult as the reduced availability of local produce may increase the need for the importation of goods for tourists which increases business overheads.

6.4. **Tourism Emergency response to disaster**

Response to disaster is the amalgamation of possible actions taken by the individual, community, government and sectors in the face of disaster or once the disaster has struck (Henderson 2007). Emergency response actions focus on providing immediate assistance for the affected population such as the supply of basic needs for food, water, shelter, medical services and clothes until other recovery strategies and solutions are reached (Faulkner et al 2001). In this phase, humanitarian agencies are often strongly
present providing support and relief assistance for the affected population (IFRC 2010). Typical activities during the emergency phase involve warning of forthcoming disasters or threatening events or the nature of the danger after the disaster (Ritchie 2008). It also pays attention to the evacuation of victims from affected areas to safer places and the immediate treatment of those who may be injured (Henderson 2007) as well as search and rescue for those who may be trapped or isolated and saving them from further danger or injury (Faulkner 2001). As gathered from the interview findings, the first and foremost emergent response most tourism operators did after the disaster was to ensure the safety of guests, the employees and family members.

A review of the published reports shows numerous forms of response provided by various national and international donors and agencies to help the Samoan communities that were affected (OCHA 2009). For example, humanitarian assistance to relieve the pain, remittance from families and friends to victims, relief assistance in form of food, water and clothes, volunteering help from local people and overseas groups and networking through sense of unity amongst the Samoan people and government bodies who were involved (UNDP 2009). As gathered from interviews with tourism operators, businesses were strongly assisted by tourists who had previously stayed with them or used their services as well as families, friends and national and international communities and governments. Assistance received ranged from monetary form to materials and products supply. Responses were also received through volunteering help offered by their employees, local communities and workers from the public and private sectors in clean up work, evacuation of tourists and rebuilding.

As much as the affected businesses received great support and assistance, there have also been numerous issues and challenges that have hindered the immediate recovery of some tourism businesses. One of the commonly mentioned complaints gathered from the results is the delay of relief assistance and aid and unclear procedures and criteria imposed by the government in accessing this relief assistance (Samoa Observer 2009). As a result, immediate recovery and rebuilding for some businesses was impossible,
while others sought funds from banks and elsewhere with the belief that the government would help cover the subsidies.

However, the government itself also experienced problems in coordinating relief assistance (ERF 2009). For example, the delay in finalising damage and needs assessment reports by ministries attributes to the delay of release of relief grants by the government. Also, the Samoa National Disaster Management Plan (NDMP) prepared by the Disaster Advisory Committee (DAC);

does not make detailed provisions for early recovery and recovery, and the government is faced with a vacuum regarding national recovery standards, principles and priorities and clear recovery roles and responsibilities of authorities at all levels (ERF 2009).

From an individual perspective, because it was the first time a tsunami occurred causing the unusual nature of damage and loss caused, there may be a gap between the NDMP already in place and the actual disaster. This could lead to confusion on the part of the government leading to poor implementation of the plan as reflected in the delay in distributing relief grants. At such a time, Ritchie (2008) suggests that a formal disaster plan may not be useful during emergencies, therefore emergency ‘tactics’ in line with the disaster plan and strategy can be applied based to the nature of the disaster. For example, tourism businesses could have received a portion of the relief grant immediately after the tsunami while the government awaited the finalised assessment reports from the ministries for final disbursement of the grant.

6.5. Samoan tourism recovery and preparedness for future disaster

While the previous section discussed potential actions during and immediately after the tsunami, this section focuses on events after the tsunami as commonly known in the planning cycle as the ‘recovery’ stage. In opposite to response, recovery is concerned with the ongoing rehabilitation of the community livelihoods after the immediate relief
assistance and change during the response stage (UN 2007). As Murphy (1994) explained, recovery focuses on reconstruction projects concerning the welfare of the disasters’ human victims and rebuilding infrastructure and productivity after the disasters. Similarly, in their approach to crisis management for global tourism, Schmidt & Berrell (2007) contend that during the recovery period, more attention should be paid to repairing the environmental effects of disasters, and to preventing environmental degradation, which can augment and generate future natural disasters.

These perspectives fit well with the strategies and measures for recovery taken by the central government of Samoa not only for rebuilding the affected communities as well as the tourism industry after the tsunami, but also for improving the communities vulnerability in the face of future disasters. For instance, the ERF (2009) report postulated a strategy for a recovery plan highlighting four key measures towards reducing disaster risks and climate related risks as follows;

- **Transition interventions from response to recovery** – measures to ensure the smooth handover from relief to recovery interventions by addressing the residual humanitarian needs of the affected population by avoiding gaps in the provision of vital services to the affected communities.

- **Governance Arrangements for Recovery** – measures to put in place the overall governance arrangements for recovery by setting the national policy framework for recovery and by strengthening institutional capacities of national and local authorities to facilitate the effective design, planning and implementation of early, medium and long-term recovery programs.

- **Building back better** - measures to ensure that opportunities for building back better address reduction of immediate to long-term vulnerabilities of village communities, ecosystems and the environment. That these are grasped in the planning and implementation of recovery and reconstruction programmes in all sectors to avoid re-establishing previous or even new disaster risks.
• Community Awareness and Resilience – measures to raise community level disaster awareness and community resilience by strengthening participation and mobilisation; providing information on hazards and risks, climate change impacts, adaptation and mitigation options; government policies and programmes; developing village preparedness plans and organisation; and through training and capacity building in disaster response, preparedness and mitigation.

(Source: ERF 2009)

These strategies imply the importance of the immediate recovery of tourism industry as Samoa’s biggest commercial activity and economic development. They also indicate the great need for better tourism services and facilities in terms of quality and range which is given priority in disaster mitigation measures and preparedness programmes for future disasters. This is evident by the allocation of a substantial amount of disaster relief grant for tourism recovery as shown in Table 12.

Table 12: Summary of cost of proposed Early Recovery Interventions

<table>
<thead>
<tr>
<th>Livelihoods</th>
<th>SAT $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Livestock</td>
<td>$9,103,154</td>
</tr>
<tr>
<td>Tourism</td>
<td>$21,300,000</td>
</tr>
<tr>
<td>Income Generating Activities</td>
<td>$547,700</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$30,950,854</strong></td>
</tr>
</tbody>
</table>

(Source: ERF 2009)

As gathered from the results, the tourism organisations recognise the range of strategies that need to be enforced during the recovering and rebuilding of affected tourism businesses after the tsunami. One of the strategies is the adoption of the marketing brand ‘green tourism’ depicting the essential multidimensional aspects of social, cultural, religious, economic and environmental elements of the Samoan community. More specifically, tourism operations are encouraged to improve the quality of their services and facilities while rebuilding by complying with accommodation standards and national building codes set out by relevant organisations (STA 2008). Another
significant area of recovery strategy as mentioned by one of the informants is assisting the tourism operations to seek for other sources of funding to rebuild. Central to this financial support is the idea of recovering instantly and ‘building back better’ in line with the central government strategy stated in the ERF (2009), so that accommodation structures will be less susceptible to natural disasters in the future.

As mentioned in chapter two for island tourism, this research supports the adoption of the ‘green tourism’ strategy for the tourism industry in Samoa not only as a marketing strategy to attract tourists after the tsunami but use to provide guidelines to develop a comprehensive plan for future disaster.

The following section outlines the recommendations that this research considers would yield substantial benefits for the tourism industry and relevant institutions and organisations in Samoa. These areas include: assessing the risks and vulnerability to natural disasters, strengthening the capacity for managing disaster risks, developing efficient disaster prevention strategies and most importantly developing a disaster planning specific for the tourism industry in Samoa.

6.6. Challenges for long-term recovery

Based on the researcher’s observations, tourism recovery from the tsunami is likely to occur in the next months as well as challenges and issues continuing to happen at the same time. The first of these challenges is from the distorted media coverage of the tsunami, which has painted an erroneous picture for those businesses that were not affected. It is a matter of concern in this research that the national tourism organisation should provide an up-to-date appraisal of the prospects for tourism recovery through local and international media. Another challenge is regaining tourist confidence for their safety in the affected areas. As seen from the Indian Ocean tsunami, affected businesses fought to regain tourists’ confidence to visit their places for many months (Cheung et al 2006). This means that tourists will visit the affected tourism businesses in Samoa if a reasonably long period passes without another tsunami or other disaster. In addition,
the full capacity of businesses to receive ‘holiday makers’ during the peak season from June to July is questionable as the repair and construction at the sites is still ongoing. As gathered from the interview with Dora,

*bookings for 2010 are relatively below the usual level during peak season compared to previous years. This is due to a lot of construction and repair work going on at the site; also as I get from enquiries on our website, most tourists are reluctant to come due to safety reasons.*

This begs the question of whether special rates and discounts are worth implementing in order to attract more visitors to fill the rooms, although revenues will likely to decline as a result.

### 6.7. Recommendations

Below are five recommendations that came out of this research directed toward the affected tourism businesses and central tourism organisation. They have been developed through the analysis of the interview data, media reports and other reports made available to the researcher.

1) As indicated by the document review and the interviews, none of the businesses in this study have disaster plans even though some of the businesses indicated that they have informal recovery and response plans. The recovery actions as observed tend not to address long-term recovery efforts and focus on short-term activities. Therefore, tourism businesses and central tourism organisation need to develop successful natural disaster planning incorporating each phase of the disaster cycle which includes the impacts, response, recovery, mitigation and preparedness phases as discussed in section 6.2.

2) As explained previously, interview participants’ responses indicate that as much as they feel keen to respond and recover from the tsunami, they would also like strong and continuous guidance and assistance from the central tourism
organisation and relevant organisations to develop disaster planning. As gathered from experiences of the Indian Ocean Tsunami, the relevant organisations need to become more proactive in increasing local tourism capacities to respond and recover from such an extreme disaster by developing collaborative networks with tourism businesses to develop a holistic disaster plans.

3) Appropriate information on disaster warning and risk reduction should be disseminated from the central DMO and channelled through the proper media and tourism bodies to the tourism businesses around the country.

4) Experiences, as noted from the recovery plans after the Indian Ocean Tsunami, would provide direction for the affected tourism businesses and relevant organisations in Samoa for disaster planning for similar disasters in the future. This means that the stakeholders who typically hold the resources to be able to develop disaster planning must share their knowledge. In doing so, tourism business owners, employees and guests also need to feel responsible to understand what to do in the event of a disaster and to protect themselves and their property.

5) Finally, coordination, effective communication and cooperation amongst tourism stakeholders should be increased to help ensure the capacity of tourism businesses in effectively responding to and recovering from disasters such as the tsunami. Without proper disaster planning, the tourism businesses owners, their properties, guests and employees will be greatly endangered if/when a similar or larger disaster occurs.

6.8. Summary

This chapter has provided valuable information for understanding the tsunami impacts on tourism businesses on the south coast of Samoa and the relative responses undertaken by the affected businesses to cope with these impacts. As reported in Chapter 5, tsunami is a natural disaster that has never happened in Samoa before but tourism businesses and relevant organisations involved in this study have attempted to coordinate their actions
in a timely fashion in response to the impacts they encountered. The actions taken by the affected businesses were based on common sense of what should be done but very challenging because tsunami is an extreme event that requires actions among multiple stakeholders.

The great loss experienced by tourism businesses during the 2009 tsunami was largely due to an under-estimation of the vulnerability of the tourism industry and a lack of preparedness to deal with the tsunami risk. This reaffirms the need for a comprehensive plan for Samoa’s tourism industry to deal with risk and vulnerability to natural disasters. As shows in the ERF (2009) report, the government of Samoa has made a positive approach towards assisting the tourism industry giving priority to its immediate rebuilding despite a few issues both tourism businesses and government experienced in relation to the delay release and unclear procedures of accessing disaster relief grants.

As gathered from the research findings, discussion has also provided useful insights into developing and implementing comprehensive disaster planning with particular reference to the tourism industry of Samoa. This idea has evolved from the scope of findings that there is a great need for tourism businesses to gain understanding and recognition of the relationship between disasters and development. The Samoa tourism industry and its stakeholders need to identify, understand and address the relevant issues in relation to disaster response strategy and longer-term tourism development. Given this perspective, this research strongly recommends formulation of a national tourism disaster plan to ensure an even greater awareness, mitigation and preparedness of tourism businesses for future disasters.
Chapter VII: Conclusion

7.1. Introduction

Tourism industries and tourists are always under threat due to their exposure to disasters that may disrupt the ability of businesses to operate as well as losing the confidence of tourists to visit places that are prone to disasters. This thesis has attempted to describe the impacts of the September 2009 tsunami on tourism businesses on the south coast of Samoa and investigated how these tourism businesses and relevant organisations responded and dealt with the disaster impacts. Using the research findings from interviews, site observation, and a review of media articles and government reports, this section presents the conclusions that have achieved the research objectives. The focus of this research from the outset has been on the recovery of the tourism businesses from the tsunami and tourism preparedness for future disasters.

Within the context of the 2009 tsunami, this research has focused on providing useful insights to understanding the severe impacts of tsunami on tourism businesses created by the September 2009 tsunami and the response and recovery plans employed by the affected businesses. The research findings documented the views by tourism operators and relevant organisations about the intensity of the tsunami and its impact on the potential survival of tourism. The intensity of the tsunami disaster was quite high among interview participants; it generated mass devastation by tsunami waves for the tourism businesses along the coastal areas in the Safata district. The results suggest that the majority of respondents felt that tsunami pose significant threats to tourism facilities and infrastructure, especially in the disaster prone location where they are based. In addition, as gathered from the document review and the interviews, the tsunami disaster has brought the unity and kindness of the Samoan people to the forefront, while also prompting generosity of individuals, communities and governments locally and internally. Presently, the tourism businesses in this study has physically recovered from the tsunami, however there are still many lingering issues that Samoa needs to address.
7.2. Overview of the 2009 Tsunami

The magnitude of the tsunami has greatly disrupted the routine operations of the tourism businesses as well as threatening the future survival of the businesses. The impact of the tsunami was evident in many aspects. Firstly, the economic impact was evident in the dramatic decline of tourism expenditure resulting from high number of booking cancellations across all hotels, including those that were not affected by the tsunami, due to inaccurate information being sent out by the media. A total of 53 accommodation properties (35% of national accommodation facilities) were destroyed or physically affected by the tsunami (MOF et al 2009). Low demand was also noted for support services such as restaurants, tour operators and travel agents resulted from a downturn in tourism services and products in direct tourism facilities.

Secondly, an approximate number of 470 employees lost their jobs as the result of business closure after the tsunami, affecting their standard of living and capacity to provide for their families (UNDP 2009). This highlights the high degree of dependency of village people on tourism in the affected areas as they face long term challenges in rehabilitating their livelihoods especially for those who depended directly and solely on tourism. As noted from the participant’s interviews, the social impact of the tsunami upon tourism was also noted in the loss of touristic motivation to visit the affected places for a lengthy period after the disaster due to uncertainty and threat for their safety.

As explained in chapter one, tourists’ are particularly vulnerable to natural disasters (Ritchie 2008, Henderson 2007) because attractions are often in hazardous areas and because the tourism amenity value of the land (such as beaches) is associated with the hazard. In addition, tourists in hazardous areas are unaware of local hazards and unfamiliar with local geography or culture (Faulkner 2001). As a result, the business image and its reputation are greatly disrupted and it may take several years to overcome this and regain tourists’ confidence (Beirman 2003). For example, the participant from the national tourism organisation commented that the image and reputation of those businesses that were not affected has also been disrupted from incorrect information.
being released to local and international media sources painting a wrong picture of the tsunami for unaffected parts of Samoa.

Further evidence of the profound impact of the tsunami on tourism was also seen on the environment. For instance, most participants stated that their sandy beaches were severely affected by sand erosion and rubbish carried by tsunami waves from other areas. Damage was also caused to reef beds where the wave swept debris from tourist accommodations (such as televisions, chairs, ovens and fridges) or other residential settlements out onto the reef beds (MNRE 2009). This may cause poison to the marine habitats as some of them may have contained pollutants or toxins such as cleaning chemicals that could damage the corals.

The review of government reports, media articles and interview participants responses show that tourism businesses and relevant organisations bear responsibility of being the first responders in the event of an emergency or disaster. However, the interview participants indicated that the businesses did not have sufficient resources to respond and recover from the large-scale and severe damages caused by the tsunami. In addition, participants indicated several issues they faced in trying to respond and recover from the tsunami due to the lack of formal disaster planning. Based on the document review and interviews, none of the tourism businesses had a disaster plan before the tsunami hit. However the businesses involved in this study have indicated their willingness to develop a disaster plan in the future.

While the affected businesses recognised the important responsibilities and challenges for disaster planning, there is great support and guidance from the national tourism organisation and government on how to accomplish such efforts. Based on the information from the document review (MOF et al 2009), the government and stakeholders are willing to provide assistance to the affected businesses during the recovery period in terms of financial support as well as consultation towards building the strength and increasing capacity of the businesses to be proactive in preparing for future disasters.
Evidence gathered from the findings, shows there was an element of shock that left the affected businesses with limited choice of how to rebuild and a feeling of uncertainty whether or not to rebuild again. In addition, the sudden occurrence of the disaster gave the tourism operators no chance to choose the best possible action for escape. Furthermore, the threatening after-effects of the tsunami have made the experience a highly stressful one for the affected tourism businesses as all participants agreed during the interviews. These characteristics of the tsunami imply the lack of disaster warning, poor or insufficient disaster awareness and training programmes, pre-disaster planning deficiencies and unwillingness to commit to disaster planning. It was also found from document review and interviews that most tourism businesses premises were uninsured for tsunami. In addition, emergency response and recovery plans were non-existent before the tsunami and there were few and unclear procedural guidelines to facilitate rescue or evacuation of tourists and staff from danger zones.

7.3. Samoa tourism disaster planning

Based on the document review, media reports and interviews, the tsunami disaster has indicated how little organised research has been carried out into understanding the planning and management of natural disasters in the tourism industry in Samoa. Consequently, there is a lack of prepared frameworks to prepare, plan and manage the impacts and how to cope with such events. This may be due to the complex nature and infrequent occurrence of these incidents with the inability of planners and managers to forecast and understand such events (Anderson et al 2007). Nonetheless, there are signs of appropriate strategic actions being taken by tourism businesses to cope with the impacts and their capacity to recovery after the tsunami. These actions embody features commonly associated with disaster response as discussed in chapter 2, the literature review chapter. For instance, the tourism operators immediately dealt with the evacuation of tourists to safer places such as hotels in town and began the search and rescue for missing tourists and staff.
In addition, tourism operators conducted an analysis of damage and loss on their businesses immediately after the event that indicates their common sense of what could be and should be done after a disaster hits. In many respects, the reaction of the tourism businesses and relevant organisations to recovery from tsunami was very effective. For instance, the development of the recovery strategies and measures for ‘building back better’ postulated by the government organisations involved in the early recovery assessment of the tsunami as explained in chapter 6 (ERF 2009) and the ‘green tourism’ marketing campaign developed by the South Pacific Travel organisation for all Pacific countries (SPT 2007).

At a broader level, disaster planning for tourism is the collective responsibility of many different individuals, communities, agencies and organisations (Cooper et al 2007). Tourism businesses and services are diverse and interconnecting and need to work together to pursue response and recovery plans according to capacity and local resources in the face of disasters (Glaesser 2003). In addition, tourism capacity and resilience to disasters may be positive in some situations or hazard levels, but may endanger its guests in other situations. For instance, while the affected businesses from the tsunami have been able to start rebuilding their businesses incorporating national building codes and standards for tourists’ safety, the bar and restaurant operation and surf business are still unable to get full insurance for their businesses due to the insurance company criteria not being met (example the buildings that use Samoan local materials such as hatches and posts).

This means that more planning and preparation is needed to make a warning and evacuation system effective. Steps have been taken, however, to make this system work. The central government in collaboration with the DMO has made commitments to create tsunami-warning systems to enforce disaster practices that were introduced few years ago (Williams & Leavasa 2006). Clearly, tourism businesses involved in this research did not have any disaster plans before the tsunami; most are now considering developing plans. However, there was evidence that informal disaster strategies of warning and evacuation existed at the time of the tsunami.
As gathered from interview results, most businesses are heading towards developing their own specific operative disaster plan based on the nature and size of the business with assistance by the national tourism organisation (STA) and DMO. Therefore, it is vital for future research to examine whether, and to what extent, these businesses and the national tourism organisation have developed the businesses respective disaster plans. The central tourism organisation in its TDP for 2009 – 2013 has identified key areas of risks that may assist the tourism industry develop their own respective plans for risk reduction and disaster mitigation according to the resources and capability of the business to implement such plans. These include:

- Risks from the physical environment
- Risks from the human and institutional environment outside the tourism sector.
- Risks from the tourism sector and related commercial sectors.
- Risks from the individual traveller or personal risks.

(Source: STDP 2009 – 2013, p 78)

Effective coordination and commitment of stakeholders during normal times and through relevant strategies to mitigate disasters and reduce risks as listed above, will greatly help tourism businesses understand disasters and be able to cope at the wake of disasters. In addition, the sharing and learning from experiences of the Indian Ocean Tsunami will help tourism businesses develop proactive and strategic actions to manage and become more aware and prepared for future disasters.

7.4. Future research

This thesis has highlighted the need for further research that investigates and assesses the success of recovery plans and actions for tourism businesses that were affected by the tsunami. In doing this, the focus of future research should compare the growth of tourism in terms of tourist arrivals and tourist receipts before and after the tsunami struck. Due to the fact that tourism businesses were severely affected by the tsunami,
and that tourism businesses did not have any formal procedures for mitigation and preparedness, it is imperative for research to be undertaken that investigates a tourism specific disaster planning strategy that addresses specific problems affecting individual businesses such as marketing strategies in the recovery phase that are not addressed in the broader national tourism disaster plan.

Since the focus of this research has been on examining the measures that a small number of individual tourism operators have used to cope with the tsunami and their recovery, it has reflected the need for further investigation of how the tourism industry as a whole can cope with disasters by developing a disaster plan and examining in detail how such a plan is implemented through the different phases of the disaster cycle. This emphasis reflects the view that a coordinated approach integrating a wide range of participation amongst a larger number of tourism operators and relevant organisations is vital for this investigation.

7.5. Lessons learned from this research

This research has taught the author several lessons. First, this was the first time this author has conducted a qualitative research, and it was a challenging and overwhelming learning experience. The wealth of information collected from the interviews represents the richness of detail and in-depth understanding of the research questions that such data can provide. The approach of semi-structured interviews in an informal manner provided the researcher with in-depth understanding and deeper impression of the people being interviewed and of the devastating and phenomenal damage they experienced during and after the tsunami.

The author has also learned about the abundant amount of information that can be collected from a small number of respondents for qualitative methods such as interviews, document review and site observations. In addition, some of the information collected for this study was almost similar in terms of meaning and context which, during data analysis caused problems of selecting the response that contained more
meaning towards achieving the research objective. For instance, most respondents commented along the same line such as booking cancellation, decline cash flow and incorrect media coverage of the tsunami. Therefore, though many interesting comments were gathered, quotations that did not provide deeper insights into understanding the research objectives were omitted based on the author’s judgment.

7.6. Contribution to knowledge

Very little information exists in SIDS such as Samoa regarding tourism disaster planning (Harrison 2004, Meheux et al 2006). This study provides one of the first investigations which included a field data collection, site observation and analysis of media articles and government reports regarding tourism destruction and recovery after the 2009 tsunami in the south coast of Samoa. In addition, this study has contributed to the examination of the tsunami with respect to tourism impacts and recovery in the Safata district where data is not readily available. Finally, there was no disaster plan for tourism at the time of this research; therefore, this thesis has generated valuable information which will contribute to the development of a disaster planning specifically for the tourism industry in Samoa.
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**Appendices**

*Appendix 1: Risk Management key information*

<table>
<thead>
<tr>
<th>Consequences</th>
<th>Insignificant</th>
<th>Minor</th>
<th>Moderate</th>
<th>Major</th>
<th>Catastrophic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Likelihood</strong></td>
<td>Ranking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Almost certain</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Likely</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Moderate</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Unlikely</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Rare</td>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
</table>
| Insignificant | • No disruption to normal business  
                • No disturbance of visitors  
                • No financial loss  
                • No media or public interest. |
| Minor       | • Minimal disruption to normal business  
                • Limited or no financial loss  
                • No media coverage or public interest. |
| Moderate     | • Short-term disruption to normal business and services to visitors  
                • Some financial loss  
                • Limited media reporting. |
| Major        | • Disruption to normal business for more than 24 hours financial losses  
                • Anger and frustration on the part of visitors  
                • Critical media reports and public criticism of tourism  
                • Damaged reputation as a destination. |
| Catastrophic | • Unable to meet visitors’ requirements and provide normal service type and level  
                • Severe financial losses; widespread criticism of tourism;  
                • Critical international media reports  
                • Mass cancellation of bookings;  
                • Damaged reputation as a destination. |

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost certain</td>
<td>Is expected to occur in most circumstances</td>
</tr>
<tr>
<td>Likely</td>
<td>Will probably occur</td>
</tr>
<tr>
<td>Moderate</td>
<td>Might occur at some time in the future</td>
</tr>
<tr>
<td>Unlikely</td>
<td>Could occur but doubtful</td>
</tr>
<tr>
<td>Rare</td>
<td>May occur but only in exceptional circumstances</td>
</tr>
</tbody>
</table>
Appendix 2: Disaster Management Framework by Faulkner (2001)

Crisis and disaster lifecycle

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-event</td>
<td></td>
<td>Pre-event: where action can be taken to prevent disasters (e.g., growth management planning or plans aimed at mitigating the effects of potential disasters)</td>
</tr>
<tr>
<td>2. Prodromal</td>
<td>Prodromal stage: when it becomes apparent that the crisis is inevitable</td>
<td></td>
</tr>
<tr>
<td>3. Emergency</td>
<td>Acute stage: the point of no return when the crisis has hit and damage limitation is the main objective</td>
<td>Emergency phase: when the effects of the disaster have been felt and action has to be taken to rescue people and property</td>
</tr>
<tr>
<td>4. Intermediate</td>
<td></td>
<td>Intermediate phase: when the short-term needs of the people must be dealt with—restoring utilities and essential services. The objective at this point is to restore the community to normality as quickly as possible</td>
</tr>
<tr>
<td>5. Long term (recovery)</td>
<td>Chronic stage: clean-up, post-mortem, self-analysis and healing</td>
<td>Long-term phase: continuation of the previous phase, but items that could not be addressed quickly are addressed at this point (repair of damaged infrastructure, correcting environmental problems, counselling victims, reinvestment strategies, de briefings to provide input to revisions of disaster strategies)</td>
</tr>
<tr>
<td>6. Resolution</td>
<td>Resolution: routine restored or new improved state</td>
<td></td>
</tr>
</tbody>
</table>


Crisis and disaster management by Ritchie (2004)

---

1. Pre-Event Stage
- Action taken to prevent disasters

2. Prodromal
- Apparent a crisis/disaster is about to hit

3. Emergency
- Incident hits; damage limitation and action needed

4. Intermediate
- Short-term needs dealt with; restoring services

5. Long term (recovery)
- Longer term clean-up; repair; retreatment; post mortem

6. Resolution
- Normal or improved state created

---

CRISIS/DISASTER PREVENTION AND PLANNING
- Proactive planning and strategy formulation: environmental scanning, issues analysis; scenario planning; strategic forecasting, risk analysis.
- Scanning to planning: developing plans from scanning and issues analysis; contingency and emergency planning.

STRATEGIC IMPLEMENTATION
- Strategic planning and strategic control: formulation of strategic alternatives, evaluation of alternatives, selection of appropriate strategies; making effective decisions quickly; influence or control over crisis/disasters.
- Crisis communication and control: control over crisis communication; development of crisis communication strategies including use of a public relations plan; appointment of a spokesperson; use of crisis communication to recover from incidents; short versus long-term crisis communication strategies.
- Resource management: responsive organisational structures; redeployment or generation of financial resources; leadership styles and employee empowerment.
- Understanding and collaborating with stakeholders: internal (employees, managers, shareholders) and external (tourists, industry sectors, government agencies, general public; media stakeholders; need for collaboration between stakeholders at different levels to resolve crises or disasters.

RESOLUTION, EVALUATION AND FEEDBACK
- Resolution and normality: resolution and restoration of destination or organisation to pre-crisis situation; re-investment strategies and resourcing; crises/disasters as agents of change.
- Organisational learning and feedback: organisations or destinations may re-organise and take stock of themselves; evaluating effectiveness of strategies and responses; feedback to pre-venture planning; levels of learning depend on single or double loop learning.
Appendix 3: Letter of invitation for participation

16 January 2010

Subject: Research Project for Masters in Tourism Thesis

TO WHOM THIS MAY CONCERNED

It is with great respect that I, Mrs Tupe Tagomoa-Isara, lecturer at the National University of Samoa, humbly seek your assistance in allowing me to conduct an interview with yourself or a representative from your business/organisation for the purpose of the above mentioned subject.

For your information, this research project is being undertaken as part of the requirements for the Masters degree in Tourism which I am currently undertaking at the University of Otago, New Zealand. My thesis is based on the research topic; ‘Recovery of nature-based tourism after the 2009 tsunami in the Safata district in Samoa’. This research seeks to explore the impacts of the tsunami on ‘nature-based’ tourism, understand how the tourism operators are responding to the destruction and examine the strategies and opportunities tourism operators and relevant organisations have considered using for reconstruction and redevelopment of the affected tourism businesses in the Safata area. Interview questions will be based on the following themes:

- Impacts of the tsunami
- Emergency response
- Obstacles, issues and challenges aftermath
- Disaster relief
- Recovery plan
- Strategies and opportunities for reconstruction
- Preparedness programs for future disasters
I am planning to commence conducting the interviews as from February 2\textsuperscript{nd} to April 14\textsuperscript{th} 2010. I would greatly appreciate your help in responding to this email and indicate the personnel whom I will interview as well as the most suitable time and date for the interview.

Also be kindly advised that only the researcher (myself) and supervisor will be able to gain access to the personal information collected. All responses will be treated with the strictest confidence and information will only be used for this Master in Tourism thesis and resulting academic publications or presentations. No names will be mentioned except the names of the businesses/organisations involved with proper permission.

For response and further enquiries, please contact me through email tagtu651@student.otago.ac.nz or by phone (work: 21428, ext 150) or mobile 7722167.

I look forward to hearing from you soon. I sincerely hope that you will feel able to assist me with this research and thanking you in advance for your great help.

Yours sincerely,

\textit{Tupe Tagomoa-Isara}

Tupe Tagomoa-Isara
Appendix 4: Consent form for participants

Recovery of nature-based tourism after the 2009 tsunami in Samoa.

CONSENT FORM FOR PARTICIPANTS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:-
1. My participation in the project is entirely voluntary;
2. I am free to withdraw from the project at any time without any disadvantage;
3. Personal identifying information recorded on videotape and audiotape will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for five years, after which they will be destroyed;
4. This project involves an open-questioning technique. The general line of questioning includes; management techniques that operators have used in response to the tsunami related to resuming nature based tourism activities. In the event that the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind."
5. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve my anonymity.

I agree to take part in this project.

............................................................................................................
(Signature of participant) .................................................................
(Date)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix 5: Interview questions for tourism businesses

Business Name: ______________________________

Interviewee: ______________________________

Position: ______________________________

Date & Time: ______________________________

Venue/Place: ______________________________

Contact Details: ______________________________

Theme Questions

1) What year did the business start operating?
2) How can you describe the impact of tsunami in terms of compounded loss on the business?
3) How was the business affected by the tsunami?
   a. tourist arrivals
   b. Tourism revenues
   c. Facilities destruction (extreme/ not serious)
   d. Deaths (employees & visitors)
   e. Resources loss (physical, economical, social)

4) What area of the business was most affected by the tsunami?
5) Did you feel the earthquake? What was your reaction after the earthquake and during the tsunami?
6) Were you aware of the signs of tsunami? Does the business have disaster warning systems?
7) What were the issues and challenges or obstacles or constraints faced by the business right after the tsunami?
   a. Tourist numbers
   b. Tourist safety?
   c. Recovery
   d. Rebuild, redevelopment
   e. Financial constraints

8) What strategies have the business considered for recovery and rebuilding from the tsunami?

9) Were/are there any opportunities that the business could develop for recovery?

10) Are there any methods/programs does the business have in place to prepare the staff for future disasters?

11) What is the stage of development at the moment for the business?

12) What products/services are you offering now that were not available before?

13) When do you think the business will restart its operations?

14) What methods does the business use to promote its services?

15) What year do you think the business can start earning profit?

Demographics

1. How many employees have worked in the business before the tsunami?
   a. Females
   b. Males
   c. Ethnicity
   d. Nationality

2. Have the business been able to rehire these employees?

3. Any change in the structure of the business than before?
Appendix 6: Interview questions for relevant organisations

1. What impacts the tsunami imposed on the tourism industry? Or looking at the compounded loss caused by the tsunami that has affected the profit capacity of the entire tourism industry?
   - Tourist arrivals
   - Tourism expenditure

2. What was the organisation’s response to those businesses affected by the tsunami?

3. What are some of the issues and challenges. What issues and challenges the entire tourism industry is facing as a result of the tsunami?
   a. An overview of the effect on Samoa’s tourism.
   b. Tourism expenditure?
   c. Tourist arrivals?
   d. Tourist source markets?

4. What key role does the organisation play in recovering and rebuilding tourism businesses that were affected by the tsunami?
   a. Give advice on new trend of tourism development (Sustainable tourism development)
   b. New strategies and opportunities for the tourism operators to consider.
   c. New change, structure, location and service?

5. What assistance did the organisation offer to the affected tourism businesses after the tsunami?
   a. Monetary?
   b. Materials
   c. Consultation?
6. What disaster relief programs that the organisation is involved in for the affected tourism businesses?
   a. Local?
   b. Regional?
   c. International?

7. Does the organisation have direct network with the affected tourism businesses?
   a. Which ones?
   b. Why?
   c. If not, why?
   d. How often?

8. Are there any disaster management programs the organisation has to prepare the tourism industry for future disasters?

9. What are some of the strategies and opportunities provided or encouraged by the organisation for recovery and rebuilding of those affected?

10. What programs or activities the organisation offer to the tourism businesses to strengthen and maintain their interest and commitment in developing tourism in Samoa?
    a. Regular consultation?
    b. Regular field visits?

REMINDER:
- Get copy of TDP
- Copy of tourist arrivals (latest) & tourism expenditure
- List of tourist accommodation in Samoa
Appendix 7: Ethics Application

Application to the University of Otago HUMAN Ethics Committee for Ethical Approval of a Research or Teaching Proposal involving Human Participants

1. **University of Otago staff member responsible for project:**
   Thompson, Anna, Dr.

2. **Department:** Department of Tourism

3. **Contact details of staff member responsible:**
   anna.thompson@otago.ac.nz Tel: 479-8057

4. **Title of project:** Recovery of nature-based tourism after the 2009 tsunami in Samoa.

5. **Brief description in lay terms of the purpose of the project:**
   This research project is being undertaken as part of the requirements for the Master's of Tourism at the University of Otago.

   The aim of the research is to examine how tourism operators in the Safata district (located on the main island of Upolu in Samoa) are recovering from the tsunami that hit the country in September 2009. The study will also seek to examine the strategies tourism operators and relevant stakeholders (e.g. Samoa Tourism Authority) have considered for rebuilding these businesses.

   Samoa has recognised tourism as its major commercial economic activity and the largest source of foreign exchange. At the same time, tourism is considered as one of the major pressures challenging the sustainable growth of the country's biodiversity and economy. In response to the dramatic changes of global mass tourism, there has been a transition in tourism development worldwide especially in developing countries such as Samoa, much of which is taking place in protected areas. Nature-based tourism has emerged as
A form of alternative tourism from the growing concerns about the unfavourable impacts of mass tourism on social and environment aspects of host destinations during the 1980s particularly in the developing countries (Twining-Ward 2005, Higham 2007, Higgins-Desbiolles 2009). The scope of nature-based tourism encompasses adventure tourism, ecotourism, alternative tourism, educational tourism, anti-tourism, sustainable tourism and many other forms of outdoor-oriented, non-mass tourism (McKercher 1998 cited in Page et al 2002). Given this perspective, it is important to say at this stage that the term ‘nature-based tourism’ is used throughout the thesis to cover all other forms of tourism where the natural environment of Samoa is involved.

‘Tsunami’ is a Japanese word that has been modified into an English term ‘harbour wave’ (University of Washington 2006) which briefly explained as a “series of waves travelling across the ocean with extremely long wavelengths—up to 100 miles between wave crests in the deep ocean” (Rittichainuwat 2006, pp 392). The nature-based tourism industry in Samoa has suffered coastal destruction from the recent tsunami in September 2009. This is because the majority of nature-based tourism businesses are located on the main island of Upolu that was severely affected by the tsunami. Therefore, this study is significant to investigate how tourism operators are responding to the damage.

The first part of the study will seek to identify the impacts of tsunami on nature-based tourism to provide useful insights into the compounded loss that the nature-based tourism operators have suffered.

The second stage of the study will seek to examine the strategies that nature tourism operators are using to resume nature based tourism activities following the earthquake and tsunami. This stage will also investigate the plans and strategies that nature tourism operators and relevant organisations may aim to have in place for future natural disasters.

6. Indicate type of project and names of other investigators and students:

Staff Research
Names

Student Research

Names

✓

Tupe Tagomoa-Isara

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7. **Is this a repeated class teaching activity?**
   - Yes [ ]
   - No [✓]

8. **Intended start date of project:** 1 January 2010
   **Projected end date of project:** 31 May 2010

9. **Funding of project.**
   Is the project to be funded:
   - (a) Internally [✓]
   - (b) Externally [ ]

10. **Aim and description of project:**
    The research is guided by the following objectives.
    1. To identify the impacts that tourism operators have experienced after the tsunami.
    2. To examine the strategies that tourism operators and relevant stakeholders have considered for recovery and reconstruction. This stage of the research will also examine whether nature tourism operators and relevant organisations have commenced instigating strategies for future natural disasters.

11. **Researcher or instructor experience and qualifications in this research area:**
    The researcher has completed and graduated with a Postgraduate Diploma in Tourism in 2008. The background knowledge and experience gained from her research project; “Examining the sustainability of ecotourism in Samoa” last year is applicable to her current research in terms of fieldwork approaches. The researcher will conduct the research in her home country (Samoa) thus she has a similar cultural background as participants and shares understanding of cultural insights with participants. In addition, the researcher has been working as a tourism lecturer at the National University of Samoa since 1998, which has provided her with further skills relevant to undertaking this study.
12. Participants

12(a) Population from which participants are drawn:

The study anticipates looking at the strategies and opportunities for recovery, reconstruction and redevelopment of nature-based tourism in Safata, Samoa. Two participating groups have been identified; nature-based tourism operators and key informants in relevant organisations. Possible participants include the current employers and employees of the tourism sites, and key representatives in relevant organisations such as the Ministry of Natural Resources and Environment (MNRE-Disaster Management Division), South Pacific Regional Environment Programme (SPREP), Samoa Tourism Industry Association and Samoa Tourism Authority.

12(b) Specify inclusion and exclusion criteria:

Recruitment of participants is based on their involvement with aspects of nature-based tourism recovery and reconstruction from the tsunami. Direct participation and involvement in the industry will guide the selection of key participants for the study.

12(c) Number of participants:

The study anticipates an approximate number of 20-30 interview participants.

12(d) Age range of participants:

It is expected that all participants will be adults and aged above 18.

12(e) Method of recruitment:

The study will use the snowball sampling and purposive methods to select the relevant participants for the study. Managers or employers of selected nature-based tourism sites will be interviewed as the initial sample group. The employers may also identify employees of the business who could potentially participate in or contribute to the study.

The same procedure will be used to identify the possible participants for interview sessions with key informants in relevant organisations. The managers in relevant organisation will be interviewed as the second sample group. The interview with the key informants of the central environment organisation (Ministry of Natural Resources and Environment) and central tourism organisation (Samoa Tourism Authority) will help identify possible participants from other relevant organisations who should potentially be involved in the study.
Please specify any payment or reward to be offered:

Not applicable

13. Methods and Procedures:
The research will use qualitative approaches to obtain data through semi-structured interviews and site visits in order to gain insights into theme questions mention below.

Interviews with participants from the tourism businesses will take place on-site at each business as the initial sample group to provide the first body of data. The snowball sampling will then take place where the employers identify the employees of the business who could potentially participate in or contribute to the study. The same procedure will be used for the government organisations and non-government organisations (NGOs) interviews. The process will continue in this pattern until the required information is collected.

The participants will be asked open-ended questions in either Samoan or English based on the participant’s preference of language. Interview questions will be conducted in a semi-structured structure based on the following themes:

- Impacts of tsunami
- Emergency responses
- Recovery
- Disaster relief
- Strategies and opportunities for resumption of nature based tourism activities and future plans reconstruction (e.g. disaster management plan)

This thematic approach to the interviews is expected to give the participants more freedom to respond in their own words with reasons for choosing their answer. It also allows greater spontaneity and adaptation of the interaction between the researcher and the study participant (Tofaeono 2000).

Ideally, as observed and reported by Tofaeono (2000 p 22), “Samoans are prone to say what they think the researchers want to hear” when research is conducted in a formal structured interview. The traditional habits of respect and formality central in the realm of the Samoan way of life (fa’aSamoan) heavily influence the responses to formal interviews and may lead to misleading outcomes (Tofaeono 2000). However, as the researcher is Samoan, it is expected that participants will be willing to reply openly and honestly.
available in the literature will also be integrated alongside this study to inform interview questions and findings.

Site visits will be used to note the approaches that tourism operators implement at the sites for reconstruction and disaster management purposes. The on-site visits will complement the interview data rising from research with managers by providing a context. The researcher will be engaged in the normal recreational activities on the sites whilst observing, reflecting and recording all this experience keeping in mind the objectives of the study. Ideally, due to health and safety reasons, site visits may not be possible for all tourism sites and the researcher will seek approval from appropriate authorities before site visits take place. Site visit is important to witness how nature-based tourism has been able to rebuild a positive image of the business to visitors compatible to the natural and cultural environments. It is also important to observe the degree of preparedness for future natural disasters. In doing this, a list of criteria in a form of a site visit check-list will be used.

**Checklist**

- Disaster management plan-preparedness and awareness programs
- Notification – well informed policies and procedures during disasters
- Evacuation plan – policies and procedures, designated assembly locations
- Rescue procedures/first Aid (staff and customers)
- Information system and data backups in place
- Insurance
- Disaster precautions & warning signs
- Safety and Health policies and procedures before and after disaster

14. Compliance with The Privacy Act 1993 and the Health Information Privacy Code 1994 imposes strict requirements concerning the collection, use and disclosure of personal information. These questions allow the Committee to assess compliance.

14(a) Are you collecting personal information directly from the individual concerned?
Yes. (participant name, organisation/village, occupation)

14(b) If you are collecting personal information directly from the individual concerned, specify the steps taken to make participants aware of the following points:

- the fact that you are collecting the information:
  There will be an information sheet (attached) to inform the participants about their involvement in the research. Each participant will then sign the consent form as proof of his or her agreement.
  - the purpose for which you are collecting the information and the uses you propose to make of it:
    All responses will be treated with strictest confidence and information will only be used for the purpose of the Masters in Tourism thesis. The results may be published in related academic publications.
  - who will receive the information:
    Only the researcher and supervisors will be able to gain access to the personal information collected. Pseudonyms will be used for all individual participants in the Masters thesis including any future publications. Participants can obtain a copy of the report if they wish to.
  - the consequences, if any, of not supplying the information:
    It is expected that participants will provide the required information for the study. There will be no consequences to the participants if they wish not to provide their personal information.
  - the individual's rights of access to and correction of personal information:
    Participants will be made aware in the information sheet that they can request a copy of the results of the project should they wish. They will also be made aware that they can withdraw from the research process at any point with no disadvantage to themselves.
14(c) If you are not making participants aware of any of the points in (b), please explain why:

14(d) Does the research or teaching project involve any form of deception?
No

14(e) Please outline your storage and security procedures to guard against unauthorised access, use or disclosure and how long you propose to keep personal information:
While in Samoa, research data will be stored in a securely locked cabinet in the researcher’s office at the Tourism and Hospitality Department at the National University of Samoa (NUS).

The data collected will also be securely stored at the University of Otago’s Department of Tourism. At the end of the project, any personal information will be destroyed immediately except that, as required by the University's research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

Reasonable precautions will be taken to protect and destroy data gathered by email. However, the security of electronically transmitted information cannot be guaranteed. Caution is advised in the electronic transmission of sensitive material.

14(f) Please explain how you will ensure that the personal information you collect is accurate, up to date, complete, relevant and not misleading:
Personal information has no serious impact on finding answers to the key questions of the study; however, the researcher will have direct communication with the respondents to ensure that any personal information received is accurate. Responses will be recorded on audiotape and field notes to avoid possible incomplete and mislead information. Participants will be asked to
clarify/confirm personal information that may sound unclear during the interview process.

14(g) Who will have access to personal information, under what conditions, and subject to what safeguards against unauthorised disclosure?

Only the researcher and supervisor will be able to gain access to the personal information collected. All responses will be treated with the strictest confidence and information will only be used for the purpose of this MTOUR thesis and resulting academic publications or presentations. No names will be mentioned except the names of the businesses involved with their permission. Pseudonyms will be used for all individuals. Discussion will not associate directly with personal details of respondents in any part of the thesis. All comments or responses will be transcribed and checked for accuracy of meaning keeping in mind that cultural concepts or words from the Samoan language may not have literal translations into English.

The participants can receive a copy of the thesis if they wish to have access to the results of the study.

14(h) Do you intend to publish any personal information and in what form do you intend to do this?

No. This study can and may be published in academic journals or referenced in related academic presentations or research but any data included will in no way be linked to any specific participant.

14(i) Do you propose to collect information on ethnicity?

No

15. Potential problems:

No problems are expected to happen.

16. Fast-Track procedure

No
17. Other committees

18. Applicant's Signature: ........................................ Date: ........................................

Please ensure that the person signing the application is the applicant (the staff member responsible for the research) rather than the student researcher.

19. Departmental approval: I have read this application and believe it to be scientifically and ethically sound. I approve the research design. The Research proposed in this application is compatible with the University of Otago policies and I give my consent for the application to be forwarded to the University of Otago Human Ethics Committee with my recommendation that it be approved.

Signature of *Head of Department: .................................................................

Date: ........................................

*(In cases where the Head of Department is also the principal researcher then the appropriate Dean or Pro-Vice-Chancellor must sign)*
Recovery of Nature-based Tourism after the 2009 tsunami in Samoa.

INFORMATION SHEET FOR TOURISM BUSINESSES

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether to participate. If you decide to participate, we thank you. If you decide not to take part, there will be no disadvantage to you of any kind and we thank you for considering our request.

What is the Aim of the Project?

This project is being undertaken as part of the requirements for the Master’s of Tourism at the University of Otago.

The aim of the research is to examine how tourism operators in the Safata district are managing to recover after the tsunami that hit Samoa in 2009. The study will seek to achieve the following objectives;

1. To identify the impacts that tourism operators have experienced after the tsunami.
2. To examine the strategies that tourism operators and relevant organisations have considered for recovery and reconstruction. This stage of the research will also examine whether nature tourism operators and relevant organisations have commenced instigating strategies for future natural disasters.

What Type of Participants are being sought?

Participants are sought based on their involvement with post tsunami recovery for nature-based tourism in the Safata district.

What will Participants be Asked to Do?
Should you agree to take part in this project, you will be asked to participate in a face-to-face interview session with the researcher. The interview will be conducted in a semi-structured form with the choice of the participant in either Samoan or English language. The interview will take approximately 1 hour, and will be recorded with your permission. The researcher will be asking questions based on the following themes:

- Impacts of tsunami
- Emergency responses
- Recovery
- Disaster relief offered
- Strategies and opportunities for resumption of nature based tourism activities and future plans reconstruction (e.g. disaster management plan)

In the event that the line of questioning does develop in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s) and also that you may withdraw from the project at any stage without any disadvantage to yourself of any kind.

Please be aware that you may also decide not to take part in the project without any disadvantage to yourself of any kind.

Can Participants Change their Mind and Withdraw from the Project?
You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.

What Data or Information will be Collected and What Use will be Made of it?
The study seeks to examine the strategies tourism operators are using to rebuild nature-based tourism in the Safata district in Samoa. It also seeks to understand how tourism operators and stakeholders are preparing and planning for future disasters.

Only the researcher and supervisor will have access to the personal information collected. All responses will be treated with strictest confidence and information will only be used for the purpose of this MTOUR thesis and may be published in relevant academic publications. No participants’ names will be mentioned except the names of the businesses involved. Pseudonyms will be used for all individuals. Discussion will not associate directly with personal details of respondents in any part of the thesis or ensuing publication. All comments or responses will be
transcribed and checked for accuracy or meaning keeping in mind that cultural concepts or words from the Samoan language may not have literal translations into English.

The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) any every attempt will be made to preserve your anonymity.

You are most welcome to request a copy of the results of the project should you wish.

The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. At the end of the project, any personal information will be destroyed immediately except that, as required by the University's research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

Reasonable precautions will be taken to protect and destroy data gathered by email. However, the security of electronically transmitted information cannot be guaranteed. Caution is advised in the electronic transmission of sensitive material.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Tupe Tagomoa-Isara or Dr. Anna Thompson,
Department of Tourism Department of Tourism
685-21248 ext 179 03-4798057

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Recovery of Nature-based Tourism after the 2009 tsunami in Samoa.

INFORMATION SHEET FOR ORGANISATIONS

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate, we thank you. If you decide not to take part, there will be no disadvantage to you of any kind and we thank you for considering our request.

What is the Aim of the Project?

This project is being undertaken as part of the requirements for the Master’s of Tourism at the University of Otago.

The aim of the research is to examine how tourism operators in the Safata district are managing to recover after the tsunami that hit Samoa in 2009. The study will seek to achieve the following objectives;

1. To identify the impacts that tourism operators have experienced after the tsunami.
2. To examine the strategies tourism operators and relevant organisations have considered for recovery and reconstruction. This stage of the research will also examine whether nature tourism operators and relevant organisations have commenced instigating strategies for future natural disasters.

What Type of Participants are being sought?
Participants are sought based on their involvement with aspects of post tsunami recovery and reconstruction of nature-based tourism in Samoa.

**What will Participants be Asked to Do?**

Should you agree to take part in this project, you will be asked to participate in a face-to-face interview session with the researcher. The interview will be conducted in a semi-structured form with open-questioning structure that will take approximately 1 hour, and will be recorded with your permission.

Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.

**Can Participants Change their Mind and Withdraw from the Project?**

You may withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.

**What Data or Information will be Collected and What Use will be Made of it?**

The researcher will be asking questions based on the following themes:

- Impacts of tsunami
- Emergency responses
- Recovery
- Disaster relief
- Strategies and opportunities for resumption of nature based tourism activities and future plans reconstruction (e.g. disaster management plan)

The study seeks to examine the strategies tourism operators are using to rebuild nature-based tourism in the Safata district in Samoa. It also seeks to understand how tourism operators and relevant organisations are planning and preparing for future disasters.
Only the researcher and supervisor will be able to gain access to the personal information collected. All responses will be treated with strictest confidence and information will only be used for the purpose of this MTOUR thesis and may be published in relevant academic publications. No names will be mentioned except the names of the organisation involved, with their permission. Pseudonyms will be used for all individuals. Discussion will not associate directly with personal details of respondents in any part of the thesis. All comments or responses will be transcribed and checked, for accuracy or meaning keeping in mind that cultural concepts or words from the Samoan language may not have literal translations into English.

The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your anonymity.

You are most welcome to request a copy of the results of the project should you wish.

The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. At the end of the project, any personal information will be destroyed immediately except that, as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

Reasonable precautions will be taken to protect and destroy data gathered by email. However, the security of electronically transmitted information cannot be guaranteed. Caution is advised in the electronic transmission of sensitive material.

**What if Participants have any Questions?**

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Tupe Tagomoa-Isara  
Department of Tourism  
685-21248 ext 179

or

Dr. Anna Thompson  
Department of Tourism  
03-4798057

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix 8: Safety plan and field work budget

Department of Tourism
Postgraduate Fieldwork Budget and Safety Plan Application Form

Name: Tupe Tagomoa-Isara
Programme: Masters in Tourism
Primary Supervisor: Dr. Anna Thompson

Brief description of the purpose of the project

The primary aim of the research project is to examine how nature-based tourism operators in the Safata district, located on the main island of Upolu, in Samoa are responding to the destruction caused by the tsunami that hit the country in September 2009. The research is guided by the following objectives.

1. To explore the impacts that tourism operators have suffered after the tsunami.
2. To examine the strategies tourism operators and relevant organisations have considered for recovery and resumption of nature based tourism. This will include investigating plans and strategies that nature tourism operators and relevant organisations may aim to have in place for future natural disasters.

The first part of the study will seek to identify the impacts of tsunami on nature-based tourism to provide useful insights into the compounded loss that the nature-based tourism operators have suffered.

The second stage of the study will seek to examine the strategies that nature tourism operators are using to resume nature based tourism activities following the earthquake and tsunami. This
includes investigating plans and strategies that nature tourism operators and relevant organisations may aim to have in place for future natural disasters.

**Brief overview of fieldwork methods**

The research will use qualitative approaches to obtain data through semi-structured interviews in order to gain insights into key questions mentioned before.

Interviews with participants from nature-based tourism operations will take place on-site at each operation as the initial sample group to provide the first body of data. The snowball sampling method will then take place where the employers identify the employees from the business who could potentially participate in or contribute to the study. The same procedure will be used to identify key informants in relevant organisations. The research will seek the appropriate authorities' approval in Samoa for the people to interview as well as gaining access to the materials available at their offices useful to the topic. The participants will be asked mainly open-ended questions in either Samoan or English based on the participant's preference of language. Interview questions will be conducted in a semi-structured structure based on the following themes;

- Impacts of tsunami
- Emergency responses
- Recovery
- Disaster relief
- Strategies and opportunities for resumption of nature based tourism activities and future plans reconstruction (e.g. disaster management plan)

<table>
<thead>
<tr>
<th>Intended start date of fieldwork:</th>
<th>1 January 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected end date of fieldwork:</td>
<td>31 May 2010</td>
</tr>
</tbody>
</table>
Fieldwork Budget (include quotes for expenses claimed for)
TENTATIVE BUDGET (New Zealand currency)

a) Airfare (return)

Itinerary:
Dunedin-Auckland (expected departure date ‘EDD’ – 14 Dec 2009) $129.95
Auckland-Apia (EDD – 6 Jan 2010) $259.00
Apia-Auckland (EDD – 31 March 2010) $259.00
Auckland-Dunedin (EDD – 1 Apr 2010) $99.95

$747.90 (quotes as of 18 Nov 2009)

b) Transportation/petrol $100.00

GRAND TOTAL $847.90

I will be paying $347.90 of my own funds to cover the costs of undertaking fieldwork associated with my studies. I confirm that I am willing and able to cover this expense.

Equipment requested to provide by the department (return after use)
Digital Camera, Digital recorder,

Ethics Approval

Is research being undertaken overseas? Yes
Is research being undertaken with any minority and/or ‘at risk’ group No
Has the appropriate ethics approval been applied for  
Yes

Has the ethics application been approved?  
Yes (minor changes to be done)

If no application for ethical approval is being/has been made state why

Does the research deal with any Maori related issues  
No

If yes, has appropriate consultation with Maori been undertaken  
No

I have a passport that will be more than 6 months from its expiry date during my fieldwork  
Yes

I have gained/I will gain all appropriate visas for my research  
Yes

I have gained/I will gain all appropriate access agreements to land/buildings/spaces for my research  
Yes

I have informed all relevant authorities that may be impacted by my research of the nature of my studies  
Yes
**Fieldwork Safety Plan** (to be completed by all students irrespective of the location of their study)

<table>
<thead>
<tr>
<th>Risk</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle malfunction or breakdown</td>
<td>Determine that the car is in good working order</td>
</tr>
<tr>
<td>Flatted tire</td>
<td>• Check oil level</td>
</tr>
<tr>
<td></td>
<td>• Battery condition</td>
</tr>
<tr>
<td></td>
<td>• Water level</td>
</tr>
<tr>
<td></td>
<td>• Check that gas tank is at least half full and tyres are sufficiently inflated.</td>
</tr>
<tr>
<td></td>
<td>• Make sure that cell phone is fully charged.</td>
</tr>
<tr>
<td>Travelling alone to the field</td>
<td>Request a friend or relative to accompany the researcher to the field.</td>
</tr>
<tr>
<td></td>
<td>• Take family during week end visits.</td>
</tr>
<tr>
<td></td>
<td>• Inform husband &amp; friends of the duration of field visit, place of visit and expected time to finish/return home.</td>
</tr>
<tr>
<td>Working alone in the field for long hours</td>
<td>Schedule field visits as early in the day as possible.</td>
</tr>
<tr>
<td>Risk of personal danger</td>
<td>• Work around the areas that are visible to others.</td>
</tr>
<tr>
<td></td>
<td>• Request a local guide to unfamiliar places.</td>
</tr>
<tr>
<td></td>
<td>• Park the car at a visible area.</td>
</tr>
<tr>
<td></td>
<td>• Inform husband &amp; friends of the duration of field visit, place of visit and expected time to finish/return home.</td>
</tr>
<tr>
<td>unfamiliar environments</td>
<td>• Make sure that cell phone is in good working condition and on all times.</td>
</tr>
<tr>
<td></td>
<td>• Dress properly.</td>
</tr>
<tr>
<td></td>
<td>arrange meeting appointments in the morning hours.</td>
</tr>
<tr>
<td></td>
<td>• hold interviews in government offices during working hours.</td>
</tr>
</tbody>
</table>
Regular Contact with Supervisors
Weekly by email

Emergency Contact Details

<table>
<thead>
<tr>
<th>New Zealand Details</th>
<th>Family Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Mekita Fuimaono</td>
<td>Name: Melepone Isara</td>
</tr>
<tr>
<td>Address: 17 Chadwick Crescent, Mangere, Auckland</td>
<td>Address: Samoa Institute of Directors</td>
</tr>
<tr>
<td>Phone: 09-2569293</td>
<td>Phone: 685-28889/685-7528889</td>
</tr>
<tr>
<td>Email:</td>
<td>Email: <a href="mailto:ceo@iod.org.ws">ceo@iod.org.ws</a></td>
</tr>
</tbody>
</table>

Existing medical conditions (note how these may be affected in the fieldwork and how this will be dealt with)

Please provide details
NIL

Safety Equipment to be Taken into the Field

Please provide details
- First Aid Kit
- Personal protective equipment
  - Proper shoes
  - Proper clothing
- Hat
- Rain coat
- Sunscreen
- footwear
- Cell phone
Note: Students always retain the right to withdraw from all or part of any fieldwork activity, without question, when they consider their physical, emotional and/or cultural safety may be compromised.

Are Immunisations required for my destination/s? No

Travel Insurance
I have ensured that I am fully insured during my fieldwork under the following policy:

Studentsafe-University (Travel and Medical Insurance for International Students)

Signed .................................................. Date ...........

Primary Supervisor (I agree that the candidate is ready to conduct research in the field, that the budget is a fair reflection of the costs associated with conducting the fieldwork associated with this study, and that an appropriate application has been/will be submitted for ethical clearance)

Signed .................................................. Date ...........

Approved by Graduate Studies Committee

Chairman .................................................. Date ...........
Appendix 9: Support Letter from Supervisor

October 2nd 2009

Dear Committee Member.

As you will see from the enclosed application, this Category A Ethics form is for research in Samoa. The earthquake and tsunami events of the last few days in Samoa will obviously have an effect on this project and on the student researcher involved (Masters Student: Tupe Tagomoa) as she is from Samoa.

The research aims were to examine how ecotourism operators were supporting the conservation of a particular Marine Conservation area in Safata on the main island of Upolu. Having talked with Tupe, this area has now been devastated.

Tupe is obviously currently more concerned about her family and their well-being than the submission of her ethics application. However, after discussing the situation with her, I felt that it was still important to submit this application to ensure that she can return home to her family and to conduct research within the timeframes we had previously established.

The main change that may occur with Tupe’s research is that instead of looking at the conservation of this particular area, she will be looking at the recovery of this particular area. Her aims and objectives will still be achievable and her findings will hopefully provide a case study of eco-tourism recovery that will have wide applicability.

We understand if, as a committee, you feel that Tupe needs to submit a revised application, but hope that you will consider her existing proposal and this addendum in light of the recent events.

With thanks for your kind consideration.
Yours sincerely

Dr Tara Duncan
Lecturer
Department of Tourism
University of Otago
Tel: 03 479 3486
Email: tara.duncan@otago.ac.nz
## Appendix 10: Summary of Reports used in this Study

<table>
<thead>
<tr>
<th>Media Report</th>
<th>Impacts</th>
<th>Response</th>
<th>Recovery</th>
<th>Mitigation</th>
<th>Preparedness</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovery project to reach isolated tsunami villages, and to fill gaps in ongoing recovery efforts</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>UNDP, Government and relevant partners, <a href="http://www.undp.org.w">www.undp.org.w</a>, (accessed June 5th)</td>
</tr>
<tr>
<td>South Coast villages go green with UNDP/Government recovery activities</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>UNDP media release, <a href="http://www.undp.org.ws">www.undp.org.ws</a>, Accessed 5th June</td>
</tr>
<tr>
<td>Early Recovery Framework</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ADB, UN (FAO, UNDP, OHCHR, UNEP, UNISDR, UNESCO, UNESCAP, UNESCO), World Bank, IPA.</td>
</tr>
<tr>
<td>Overview of Humanitarian and Short-term needs following the “Samoa earthquake and tsunami”</td>
<td>✔</td>
<td>✔</td>
<td>UNOCHA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samoa Tsunami Rapid Environment Impact Assessment Report</td>
<td>✔</td>
<td></td>
<td>MNRE, SPREP, CIPIP, UNESCO, UNEP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samoa Earthquake and Tsunami; Operations Update</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>IFRCRCS, SRCS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Island paradise struggling to recover</td>
<td>✓</td>
<td>✓</td>
<td>Otago Daily Times, December 7th 2009.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsunami report-Who can understand it?</td>
<td>✓</td>
<td>✓</td>
<td>Samoa Observer, Friday, 08 October 2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samoans struggling in aftermath of tsunami</td>
<td>✓</td>
<td>✓</td>
<td>New Zealand Herald, Saturday 31st, October 2009; <a href="http://www.nsherald.co.nz/samoa-tsunami/news/article.cfm?c_id=1502844&amp;objectid=10606492">link</a></td>
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<tr>
<td>UN gives a hand on special day</td>
<td>✓</td>
<td>✓</td>
<td>Samoa Observer, Sunday, 25th 2009</td>
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<td>Samoa and Tonga; Tsunami Situation Report, October 6th 2009</td>
<td>✓</td>
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Appendix 11: Check-list for Site Observations

Check List for Site Observation

Tourism Business: ______________________________
Date: ______________________________
Time: ______________________________

<table>
<thead>
<tr>
<th>Check List</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Main entrance to facility/hotel clear (clear access around the compound)</td>
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<tr>
<td>• Buildings &amp; properties destroyed/demolished (buildings, vehicles)</td>
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<tr>
<td>• Environment damaged (rubbish, falling trees, broken furniture &amp; equipments on ground)</td>
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<td>• Are there any tourists at the site? What activities are they doing?</td>
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<tr>
<td>• Are there any employees at site? How many? What are they doing?</td>
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<tr>
<td>• Construction of new facilities (structure &amp; design, building materials)</td>
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<tr>
<td>• Any addition to services? What are they?</td>
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<tr>
<td>• Renovation of old buildings  (modify design, painting, etc)</td>
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<tr>
<td>• Installation of disaster warning systems (e.g. signboards, notices)</td>
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<tr>
<td>• Business status (reopen, still closed)</td>
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</tbody>
</table>