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Policy Environment for the Tourism Sector's Adaptation to Climate Change in the South Pacific – The Case of Samoa

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Samoa and its neighbouring Pacific Island Countries are highly vulnerable to climate change risks because their population and infrastructure are mostly located on low-lying coastal areas. Impacts of climate change are potentially disastrous to tourism, the major economic sector in the region. This research examines the conduciveness of the policy environment in Samoa for the tourism sector to adapt to climate change along three dimensions: stakeholders' will and commitment, resources available, and policy-making mechanisms [Wong, E.P.Y., Mistilis, N., & Dwyer, L. (2011). A framework for analyzing intergovernmental collaboration – the case of ASEAN tourism. Tourism Management, 32, 367–376]. Samoa is used as an exemplar case study to understand how the Pacific island tourism sector can best adapt to climate change. It was found that the policy environment in Samoa is generally conducive. However, there is a strong need for closer public–private cooperation.

Key words: climate change, Samoa, adaptation, policy

Introduction

Tourism is an important economic sector in the Pacific. It has become the largest export sector for most Pacific Island Countries (PICs) and offers great opportunities for economic

growth, employment, and sustainable development (South Pacific Travel [SPTO], 2007). Although on a global scale, the economic significance of tourism in the Pacific is small, on a local scale, it is significant. Tourism represents a main contributor to GDP (Becken & Hay, 2007) and

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is the fastest growing economic sector in the South Pacific (Crocombe, 2008). It is projected that tourism will become a US\$2 billion industry in the region by 2010 (Everitt, 2009). Despite the global economic downturn in 2007 and 2008, visitors to the South Pacific continued to grow at about 3–4% per annum. Some destinations in the region were in double-digit growth in 2008, namely Cook Islands, Vanuatu, Samoa, Solomon Islands, and Papua New Guinea (Everitt, 2009). Many Governments in the Pacific have acknowledged the contribution of the tourism sector to economic growth and poverty alleviation.

Nevertheless, Pacific tourism will continue to face challenges due to the specific characteristics of small island states and their vulnerability to climate change impacts (Sem & Moore, 2009). An Australian Commonwealth Scientific and Industrial Research Organisation study projects the following impacts of climate change in the Pacific region (Preston, Suppiah, Macadam, & Bathols, 2006):

- Temperature increase of 0.5–2 °C by 2030 and 1–7 °C by 2070.
- Increased rainfall during summer monsoon season in decades ahead (although some uncertainty related to the regional distribution of this).
- Regional sea-level variability. On a global scale, the following sea-level rises have been predicted: 3–16 cm by 2030 and 7–50 cm by 2070.
- More intense tropical cyclones.
- Changes to the El Niño-Southern Oscillation.¹

Based on these climate change projections, Pacific tourism is likely to be affected in the following ways:

- *Infrastructure*: With the majority of infrastructure being coastal-based, tourism in the Pacific islands will be extremely vulnerable to sea-level rise and more intense tropical cyclones (Pelling & Uitto, 2002).
- *Tourist destination values and attractiveness*: Coastal deterioration in the form of beach erosion and coral bleaching will lead to decrease in destination appeal (National Institute of Water and Atmospheric (NIWA) Research, 2007; Pelling & Uitto, 2002).
- *Marine environments*: Coral reefs are crucial to the biodiversity of marine lives in the Pacific. Climate change is already and will continue to put stress on coral environments. Subsequently, this will impact dive tourism (Garrod & Goessling, 2008).

Tourism flows and demands: PICs are remotely located, requiring international visitors to travel long haul (Weaver & Oppermann, 2000). In fact, “tourists to Oceania have no alternatives but air and water transportation due to its geographical situation” (UNWTO, 2005, p. 56). Mitigation policies, such as increased cost for flying long haul, will impact tourism flows and the appeal of the region to tourists (DeLacy et al., 2010; Hamilton, Maddison, & Tol, 2005).

Pacific island tourism has a relatively low resistance to external shocks due to its isolation from major markets, small populations, inadequate transportation links, lack of local appropriate skills, and inadequate amounts of local capital (Scheyvens & Momsen, 2008). Concerted efforts are required to strengthen the resilience of the sector against the various challenges and risks posed by climate change.

As part of a larger project that aims to develop climate change adaptation policies and strategies to assist the Pacific island

tourism sector to protect and grow local livelihoods, a policy analysis exercise was conducted for Samoa. The objectives were threefold.

- (1) To identify the existing policies in Samoa that are pertinent to climate change adaptation of the nation's tourism sector.
- (2) To examine the policy-making environment by analysing:
 - (a) stakeholders and their level of commitment to the policy agenda concerned;
 - (b) resources available for policy-making and implementation; and
 - (c) policy-making mechanisms.
- (3) To identify policy gaps, such as adaptation issues that are yet to be addressed.

Given the majority of tourism operations in the region are small, governments play a crucial role in coordinating and funding climate change adaptation activities. The study of public policies and the policy environment is, therefore, important to enhance the tourism sector's adaptive capacity. In addition, an understanding of the policy environment provides the context for future policy recommendations and informs how those recommendations may be implemented.

Tourism in Samoa

Samoa consists of two large islands, Upolu and Savai'i, and eight small islets located halfway between Hawaii and New Zealand in the Polynesian region of the South Pacific. The country has a population of 192,000 (CIA, 2010). Apia, located on the northern coast of Upolu, is the nation's capital and home to Faleolo International Airport.

Western Samoa, as it was known from 1898 to 1997, was a German colony from 1898 to

1914. Between 1914 and 1961, New Zealand took over administration of the islands. On 1 January 1962, Samoa declared independence from New Zealand.

The economy of Samoa has traditionally been dependent on development aid, family remittances from overseas, agriculture, and fishing. Tourism, however, is an expanding export sector. Tourist arrivals increased by 57% between year 1998 and 2008, from 77,926 to 122,163 (Figure 1). Tourism earnings during the same period grew by 250%, from Samoan Tala \$115 million to \$288 million (approximately US\$52–US\$130 million). According to Samoa Tourism Authority's (STA) Tourism Development Plan 2009–2013, the industry contributes to approximately 10% of the nation's GDP and employment.

The major source markets for Samoa are New Zealand, American Samoa, and Australia. They account for 80% of arrivals. Two of the most important market segments by the purpose of visit are (Samoa Tourism Authority [STA], 2009):

- (1) *Leisure tourism*: Apart from fales,² beaches and the associated diving and snorkelling activities, Samoa also has rainforests and dormant volcanoes as its natural assets. Fa'a-Samoa or the traditional Samoan way, which is characterised by the importance of matais (village chiefs), aiga (extended family), and the church, adds character and appeal to the destination.
- (2) *Visiting friends and relatives (VFR)*: Many expatriate Samoans who have taken up residence overseas maintain strong family bonds to their home country. They are, therefore, a major source of visitation and consumers of mainstream tourism products such as hotels, restaurants, and tourist activities.

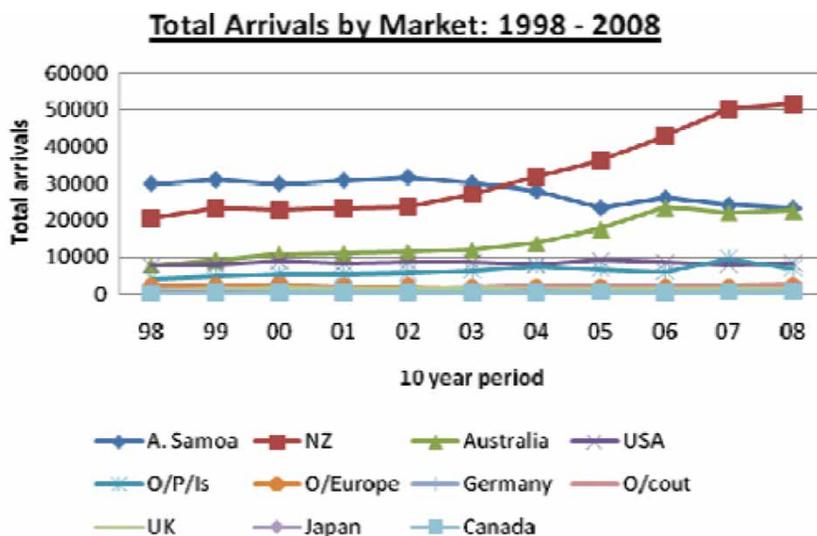


Figure 1 Tourist Arrivals by Market Between 1998 and 2008.

A. Samoa, American Samoa; O/P/Is, Other Pacific Island countries; UK, United Kingdom; NZ, New Zealand; O/Europe, Other European countries; O/cout, Other countries.

Source: STA, 2009, p. 4

The Tsunami on 29 September 2009 and its Impact on the Tourism Industry

On 29 September 2009, an earthquake of magnitude 8.3 occurred approximately 190 km south of Samoa. A tsunami happened soon after the earthquake and hit the southeastern coast of Upolu island. As a result, 143 people were reported dead, 5 missing, and 310 injured. The damages were estimated at US\$65 million and losses US\$39 million.

Villages in the southeast of Upolu were particularly popular among tourists to Samoa. In fact, Lalomanu was the number one tourist destination in Samoa before the disaster. The tsunami destroyed most of the coastal tourism infrastructure in the southeast, including 20–25% of the tourism accommodation capacity of Samoa. Most of the destroyed accommodation facilities were small beach fale, but larger resorts such as *Sinalei* and *Coconut* were also badly damaged. Many of the villagers

in the affected areas were engaged in tourism-related activities. The disaster had significant impacts on the local livelihood. While the road to full recovery is long, it is well underway at the time of writing.

While earthquakes and tsunamis are not related to climate change, disaster management is. Parts of this paper, therefore, refer to the tsunami and the related policy environment.

Method

The overall aim of this policy analysis is to understand the existing policies related to climate change and the policy environment. Such an understanding will help identify policy gaps and useful factors in the policy environment, important to developing effective adaptation strategies for the tourism sector.

First, an inventory of policies in Samoa that are pertinent to climate change adaptation of the nation's tourism sector was created. They were divided into two main groups. Policies that were, wholly or partly, formulated with the intention to address climate change were categorised as *explicit policies*. Usually, the term "climate change" would be mentioned in the title and/or certain components of the policies. Policies that were formulated with the intention to address issues other than climate change, but have components that are pertinent to climate change were categorised as *implicit policies*.

The policies were then analysed by the type of adaptation issues they address. Adaptation can be categorised into the five types as suggested by Scott, De Freitas, and Matzarakis, (2009). They are:

- (1) Technical: changes made to physical infrastructure or provisions.
 - (2) Business management: changes made by the private sector in their businesses; possibly facilitated by the government.
 - (3) Behavioural: behavioural changes made by tourists or communities.
 - (4) Policy: changes in government plans or strategies.
 - (5) Research and education: initiatives to strengthen the understanding of adaptation, explore adaptation options, and educating communities.
- Analysis was also conducted to examine how the policies address the Small Island Developing States (SIDS)-specific characteristics (Sem & Moore, 2009, p. 9) that make Samoa vulnerable to climate change. The characteristics are:
- (1) Limited physical size, which effectively reduced some adaptation options to climate change and sea-level rise.
 - (2) Generally limited national resources.
 - (3) High susceptibility to natural hazards, such as tropical cyclones and associated storm surge.
 - (4) Relatively thin water lenses, which are highly sensitive to sea-level changes.
 - (5) Low economic resilience, as the small economies are sensitive to external market shocks.
 - (6) High population growth rates in some cases and high population density along coastal areas.
 - (7) Inadequate and vulnerable infrastructure.
 - (8) Limited funds and human resource skills, which may limit the capacity of small islands to adapt to the impacts of climate change.

Policies addressing these characteristics will help make SIDS such as Samoa less vulnerable to climate change risks.

The policy-making environment was examined along three dimensions: (1) stakeholders' level of commitment to the policy agenda concerned, (2) resources availability, and (3) policy-making mechanisms. This approach is adapted from Wong, Mistilis, and Dwyer (2011), in which the three dimensions were used to analyse the policy environment of an intergovernmental collaboration. These three dimensions were shown to be broad enough to uncover new issues that were not addressed in the written text but restrictive enough to give the analysis a good structure. In other words, if very specific components of a policy environment were used to form an analytical framework, the analysis and our understanding of the phenomenon could have been limited by those components.

By examining the existing policies and the policy environment, one can identify policy gaps, for instance, adaptation issues that are yet to be addressed, and evaluate the conduciveness

of the policy environment for the tourism sector to adapt to climate change.

Data Collection

Data were collected from both secondary and primary sources. The use of multiple sources helps assure the confirmability (or objectivity) and credibility of findings (Lincoln & Guba, 1985). Secondary resources were first referred to for background information about the geography, history, politics, the institutional structure, economy, and climate change-related hazards of Samoa and related South Pacific countries. The authors then began creating an inventory of policies that are pertinent to climate change adaptation of the tourism sector by referring to official policy documents accessible to them or to other media (e.g. news reports, research papers, etc.).

The next phase of data collection involved primary research to collect data that were not available in secondary sources, and to examine policy issues from multiple perspectives. Primary data often provide insights into the policy process that may be too sensitive to be documented. Primary data of this study were obtained by means of semi-structured in-depth interviews with key informants. The interviews were conducted face-to-face in Samoa between September 2009 and June 2010. They were, on average, 40 min in length. The questions asked were: what are the policies deemed relevant, how were the policies developed and implemented, and what are the policy outcome(s) and implications for climate change adaptation.

Interviewees included individuals from stakeholders who have been highly involved in the formulation and/or implementation of policies identified, or those who are highly

knowledgeable about those policies. They were identified based on publicly accessible information on the Internet and the authors' professional network. Snowball sampling technique was also used where interviewees recommended other individuals to be interviewed. The stakeholder groups from which participants were sampled:

- (1) National and local government bodies.
- (2) Supranational organisations.
- (3) The tourism industry.
- (4) Donor and development organizations.
- (5) Non-governmental organisations (NGOs).
- (6) Research institutes or universities.

Table 1 shows the profile of the sample. A total of 34 interviews were conducted across 6 stakeholder groups.

Interviewing stopped when the data saturation point was reached, i.e. when the themes emerged from the interviews started to repeat themselves.

Findings

Inventory of Policies

A list of policies that are pertinent to climate change adaptation of the Samoa tourism sector can be found in Tables 2–5. The policies are categorised into two groups: explicit and implicit. *Explicit policies* are those that were, wholly or partly, formulated with the intention to address climate change. Usually, the term “climate change” would be mentioned in the title and/or certain components of the policies. *Implicit policies* are those that were formulated with the intention to address issues other than climate change, but have components that are pertinent to climate change.

Table 1 The Sample

Stakeholder group	Organisation	Number of interviews
Government	Ministry of Natural Resources and Environment (MNRE)	10
	STA	5
	Samoa Hotel Association (SHA)	3
Supranational organisation	Secretariat of the Pacific Regional Environment Programme	3
Tourism industry	Tour operators	2
	Accommodation operators	4
Donor/Development organisation	UNDP	3
	NZAid	1
NGO	The Foundation of the Peoples of the South Pacific International	1
	Women in Business	1
	National University of Samoa (NUS)	1
Total number of interviews		34

The analysis for Samoa identified 20 policies, 13 of those explicit, 7 implicit.

Explicit Policies

The most important policies in Samoa that are related to tourism adaptation to climate change are:

- Samoa's decision to sign the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and the Kyoto Protocol in 1998 as a non-Annex I country (i.e. developing country) (Policy #13 in Tables 2 and 3).
- The launch of the National Adaptation Programme of Action (NAPA) in 2005 with the assistance of United Nations Development Programme (UNDP) and Global Environ-

ment Facility (GEF) (Policy #12 in Tables 2 and 3).

- The launch of the National Policy on Combating Climate Change (NPCCC) in 2007 (Policy #11 in Tables 2 and 3)

Samoa's decision to sign the UNFCCC and the Kyoto Protocol can be considered the starting point of the country's significant policies on climate change. As one of the non-Annex I countries and least developed countries (LDCs) under UNFCCC, Samoa receives financial and technical support from the least developed country fund (LDCF) to carry out, *inter alia*, the preparation and implementation of NAPA. NAPAs were designed to provide a process for LDCs to identify priority activities that respond to their urgent and immediate needs with regard to adaptation to climate change. In addition, as part of its commitment

Table 2 Explicit Policies and the Corresponding Types of Adaptation Addressed (in Reverse Chronological Order)

Policy number	Policy ^a	Types of Adaptation				
		Technical	Business mgt	Behavioural	Policy	Research and education
1	PPCR 2010				✓	
2	CC/DRR agency 2009/2010				✓	
3	ADAPT 2009/2010	✓	✓	✓	✓	✓
4	NAPA 4 2009	✓	✓	✓	✓	✓
5	PACC 2009	✓			✓	✓
6	CC Summit 2009/2010				✓	
7	SNC 2009					
8	SDS 2008–2012				✓	
9	GHG Abatement 2008				✓	
10	Risk Profile 2007					✓
11	NPCCC 2007	✓	✓		✓	✓
12	NAPA 2005	✓	✓		✓	✓
13	UNFCCC 1992/Kyoto 1998				✓	✓

^aPPCR, World Bank's Pilot Program for Climate Resilience; CC/DRR agency, Proposed climate change/disaster risks reduction agency; ADAPT, Accredited Developmental Adaptation Planning for Traditional Resorts; NAPA, National Adaptation Programme of Action; PACC, Pacific Adaptation to Climate Change; CC Summit, Climate Change Summit; SNC, Second National Communication; SDS, Strategy for Development in Samoa; GHG Abatement, Greenhouse Gas Abatement Policy; NPCCC, National Policy on Combating Climate Change; UNFCCC, United Nations Framework Convention on Climate Change ratification.

Table 3 Explicit Policies and the Corresponding SIDS Characteristics Addressed (in Reverse Chronological Order)

Policy number	Policy	SIDS characteristics							
		Size	Natural resources	Hazards	Water	Economic resilience	Population	Infrastructure	Funds and HR
1	PPCR 2010								✓
2	CC/DRR agency 2009/2010			✓		✓			✓
3	ADAPT 2009/2010		✓	✓	✓	✓		✓	✓
4	NAPA 4 2009		✓	✓	✓	✓		✓	✓
5	PACC 2009			✓				✓	✓
6	CC Summit 2009/2010			✓					✓
7	SNC 2009								
8	SDS 2008–2012			✓				✓	
9	GHG Abatement 2008					✓			
10	Risk profile 2007								✓
11	NPCCC 2007			✓		✓		✓	✓
12	NAPA 2005		✓	✓	✓	✓	✓	✓	✓
13	UNFCCC 1992/ Kyoto 1998								✓

Table 4 Implicit Policies and the Corresponding Types of Adaptation Addressed (in Reverse Chronological Order)

Policy number	Policy ^a	Types of adaptation				
		Technical	Business mgt	Behavioural	Policy	Research and education
14	Early recovery 2009				✓	✓
15	Business recovery 2009		✓		✓	
16	TDP 2009				✓	
17	NDMP 2006				✓	
18	DEMA 2006				✓	
19	CIMP 2002–2006	✓	✓			
20	IAMP 1999–2008	✓				

^aEarly recovery, Samoa Early Recovery Framework for September 2009 tsunami; Business recovery, Samoa Business Recovery Strategy; TDP, Tourism Development Plan; NDMP, National Disaster Management Plan; DEMA, Disaster and Emergency Management Act; CIMP, Coastal Infrastructure Management Plan; IAMP, Infrastructure Asset Management Plan.

Table 5 Implicit Policies and the Corresponding SIDS Characteristics Addressed (in Reverse Chronological Order)

Policy number	Policy	SIDS characteristics							
		Size	Natural resources	Hazards	Water	Economic resilience	Population	Infrastructure	Funds and HR
14	Early recovery 2009			✓				✓	✓
15	Business recovery 2009					✓			
16	TDP 2009					✓			
17	NDMP 2006			✓		✓		✓	
18	DEMA 2006			✓					
19	CIMP 2002–2006			✓	✓			✓	
20	IAMP 1999–2008								

to UNFCCC, Samoa produced the First National Communication in 1999 and Second National Communication (SNC) in 2009. They are documents that record a country's inventory of greenhouse gas emissions and mitigation, as well as other activities related to climate change issues.

Samoa's NAPA was completed in 2005. It laid important groundwork for existing climate change policies for the country, as it provided a detailed account of the current risks and vulnerabilities, and identified nine priority projects, one of which was for tourism. Such a project was aimed to "establish a National Sustainable Tourism Policy so that other sectors involved and communities have a constructive knowledge on procedures and protocols relative to the industry taking into account climate change and climate variability" (National Adaptation Programme of Action Task Team [NTT], 2005, p. 55). In 2009, formulation of plans to implement the tourism project began. At the time of writing, details of those plans were being finalised. One of the proposed plans is called ADAPT (Accredited Developmental Adaptation Planning for Traditional Resorts), which involves the building of a carbon-neutral village or resort using green technologies.

The 2005 NAPA report also prompted the development of Samoa's climate risk profile, and the NPCCC in 2007. The latter establishes a regulatory framework to facilitate the country's responses to climate change. Major outcomes so far include the 2008 National Greenhouse Gas Abatement Strategy, and the 2009 National Climate Change Summit.

Efforts to address climate change challenges in Samoa over time have progressively influenced the country's policy-making. For example, in the 2008–2012 Strategy for Development in Samoa (SDS), a document that sets out the strategic directions of policies in the

nation, acknowledged the climate change risks Samoa is facing, and made disaster management and coastal infrastructure management (CIM) priorities for the MNRE, and Ministry of Works, Transport and Infrastructure. There are also plans for establishing an independent climate change and disaster risk reduction agency. This can be a significant step forward for the country to effectively coordinate climate change activities across the government and to mainstream climate change in all its policies. Finally, the Ministry of Finance is currently working closely with the World Bank and the Asian Development Bank under the Pilot Programme for Climate Resilience (PPCR) aiming to mainstream climate risk and resilience into the nation's development policies and planning. These initiatives show that Samoa is moving from a fragmented, project-by-project approach to an integrative approach in addressing climate change.

Figure 2 summarises the explicit climate change policies for Samoa and their inter-relationships. It shows that the signing of UNFCCC and the Kyoto Protocol has led to NAPA, which then gave rise to the development of the Climate Risk Profile, NPCCC, a national Pacific Adaptation to Climate Change (PACC) report, and various NAPA implementation strategies.

Using Scott et al's (2009) categorisation of adaptation type, the climate change initiatives undertaken by the Samoan government are essentially adaptation on a policy level, as opposed to, for example, technical level where changes are made to physical infrastructure. These initiatives establish plans, strategies, and frameworks for adaptation (Table 2). The resources committed (e.g. the LDCF) essentially address the SIDS characteristic of the country's vulnerability to natural hazards and limited funds and human resource skills as identified by Sem and Moore (2009) (Table 3).

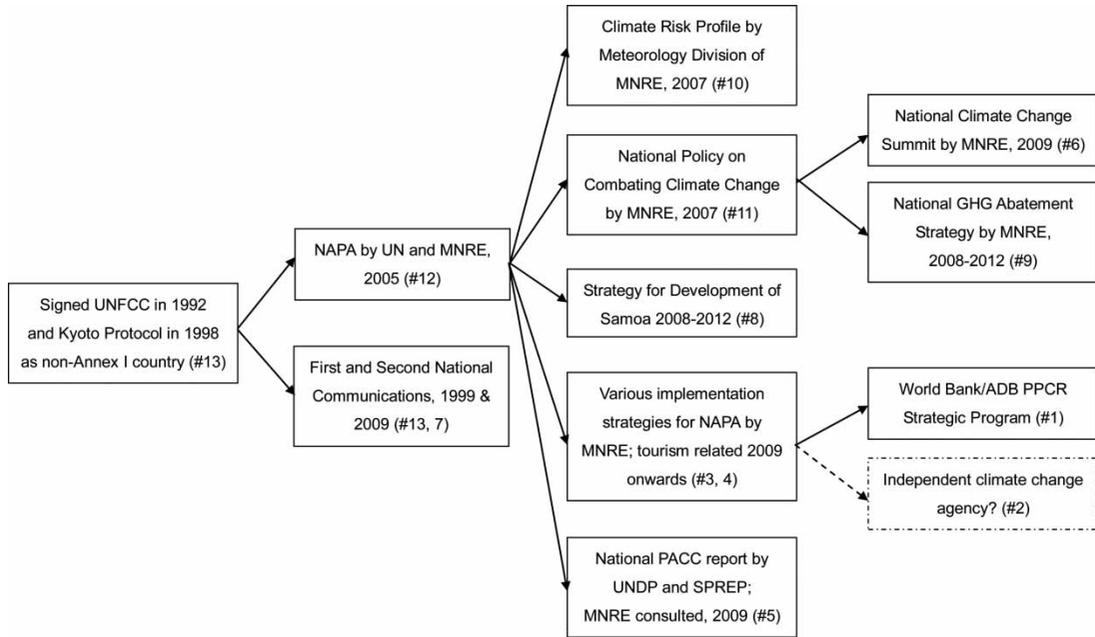


Figure 2 Mapping Out the Explicit Climate Change Policies of Samoa (#1, 2, 3 ... denote the corresponding policy numbers in Tables 2 and 3).

Implicit Policies

Seven implicit policies were identified. They are policies that were formulated with the intention to address issues other than climate change, but have components that are pertinent to climate change. These seven policies can be categorised into three groups:

- (1) Disaster and risk management policies (Policy #14, 15, 17 and 18 in Tables 4 and 5).
- (2) Infrastructure policies (Policy #19 and 20 in Tables 4 and 5).
- (3) Tourism development policies (Policy #16 in Tables 4 and 5).

In response to the 2004 Indian Ocean Tsunami in Southeast Asia, the Samoa Government formulated the Disaster and Emergency Management Act in 2006 (Policy #18). Consequently,

a National Disaster Management Plan (Policy #17) was developed, which sets out the detailed arrangements for mitigating, responding to, and recovering from the impact of hazards. The Act and the Plan are related to climate change adaptation because the Government and the communities are now better prepared for hazards such as storm surges and cyclones, impacts that are brought about by climate change. In fact, it was because of the disaster management plan that the Government could immediately respond to the earthquake and tsunami that occurred on 29 September 2009. The UNESCO-IOC International Tsunami Survey Team wrote in the post-tsunami study that “the excellent tsunami awareness campaigns of the Disaster Management Office of the Government of Samoa in recent years means that far fewer people died than would have been the case” (UNESCO-IOC, 2009, p. 135).

Although earthquakes and tsunamis are not the results of climate change, their occurrence has highlighted the vulnerability of coastal communities and infrastructure. In the Early Recovery Framework prepared by the Government and UN immediately after the tsunami (Samoa Government, 2009) (Policy #14), specific recommendations were made in the areas of disaster risk reduction and climate change. They include development of guidelines to climate-proof structures and infrastructure along the coast, and promotion of alternative livelihoods that are less vulnerable to the impacts of prevalent natural hazards. For the tourism sector, foreign consultants were hired to formulate business recovery strategies (Policy #15). The report (Emergency Architects Australia, 2009) recommended a tourism business plan and a set of comprehensive redevelopment guidelines to be developed. These reports that were generated as a result of the tsunami would contribute to the resilience of Samoa against the negative impacts of climate change.

Other implicit policies include the 2002–2006 CIM plans. The CIM Plans were part of Samoa's Second Infrastructure Asset Management Programme (SIAM-2; continuation of Infrastructure Asset Management Plan (IAMP-1)), and the means to implement the 2001 CIM Strategy. The aim of the plans was to improve the resilience of coastal infrastructure and communities to natural hazards. Localised and customised plans were progressively introduced between 2002 and 2006. Unfortunately, according to a government representative, the plans had not been fully implemented due to lack of funding. Yet, given their pertinence to climate change risks, NAPA and SDS (explicit policy #8 and 12) reinforced that the plans be given priority by the Government and continue to be implemented.

The implicit policies identified so far are closely related to risk management. Applying Scott et al's (2009) terminology for climate change adaptation types, disaster management policies entail adaptation on a policy level, and given the disaster risk awareness campaigns conducted, also on a research and education level. The CIM plans, on the other hand, can be considered technical adaptation because they render specific recommendations on physical infrastructure improvement. While these policies were not developed for climate change, they can play an instrumental role in adaptation and their importance should not be overlooked (Table 4). They also address the SIDS characteristics of being prone to natural disasters, having low economic resilience and inadequate infrastructure as identified by Sem and Moore (2009) (Table 5).

The final implicit policy is the Tourism Development Plan that is updated every 3 to 4 years. The latest one was written for the period 2009–2013. Concern was expressed in the document over tourists' perception of flying long haul to Samoa and the associated carbon emission level. The plan calls for development of a sustainable image and market positioning for Samoa as a destination. One may argue that this is a policy-level adaptation when a country intends to change its marketing strategy for a potential shift in tourists' perception. However, there seems to be a neglect of important issues such as the risks brought about by climate change facing the tourism industry, and the need to adapt.

Policy-Making Environment for Tourism and Climate Change-Related Policies

Stakeholders and their interrelationships. The MNRE is the government agency that

drives the climate change agenda in Samoa. It is the focal agency that coordinates other government departments involved in the implementation of climate change policies. An Assistant Chief Executive Officer (CEO) of the Ministry chairs the 39-member National Climate Change Country Team (NCCCT), the nation's steering committee for climate change. Many of MNRE's climate change initiatives were led by the former CEO Tu'u'u Ieti Taulealo, who finished his term in 2009. Primary data show that he is highly involved in the process of setting up an independent climate change government body in the country.

Another key player in MNRE is the Assistant CEO of GEF Division in MNRE, who is responsible for coordinating funding. He helps determine how incoming funds from GEF and donor countries, for example, should be used. These funds include those for NAPA. The Assistant CEO (GEF Division) exercises substantial influence on the structuring of adaptation programmes, and advises the CEO on those decisions. Another important position is the National Climate Change Coordinator who works within the Division of Meteorology in MNRE. This position plays less of a decision-making role but more of an administrative and coordinating one.³

Planning and Urban Management Agency (PUMA) is a division in MNRE that has indirect involvement in climate change policy-making. It formulated IAMP and CIMP (policy #19, 20 in Tables 4 and 5) with no explicit intention to address the adverse impacts of climate change. Due to the lack of funding, their implementation had been suspended. They were, however, "resurrected" by NAPA's funding as NAPA identified the protection of coastal infrastructure as one of the key adaptation priorities for Samoa. PUMA can, there-

fore, be considered an important player in the country's climate change agenda.

STA and SHA are divisions of the Ministry of Commerce, Industry and Labour (MCIL). MNRE regularly consults the two for the implementation of the tourism component of NAPA. While STA and SHA are agencies established to promote tourism development and to act as a bridge between the government and the industry, a number of interviewees from the private sector feel that stronger communication needs to take place between the two parties. For example, an operator said, "the only time [we are in contact] is when they [STA/SHA] came and do some sort of inspection; there is very little communication between us..." Another operator feels that he can be more active in SHA, "perhaps I could have participated more in their [SHA's] activities... at the moment, I am focusing on my own business..."

Apart from MNRE, the UN and donor countries such as Australia play an indispensable role in Samoa's fight against climate change because the policies are highly dependent on foreign funding and assistance. Foreign agencies actively involved include UNDP and AusAID.

Samoa is at an early stage of implementing its adaptation strategies. It is important for both the government and the supporting foreign agencies to be persistent and commit to implementing and monitoring of the relevant policies in the long term.

Influence of non-tourism-specific policies. As illustrated in the Inventory of Policy section, most of the climate change-related policies in Samoa were developed in a general, national context, and were not specific to any industry sector. These policies essentially provided a state-wide framework for subsequent mitigation and adaptation actions, including those

that would be undertaken by the tourism sector. For example, the tourism projects that are currently in draft form (#3 and 4) are part of the implementation of NAPA; and improving the resilience of tourist facilities along the coast is one of the strategies proposed in the CIM Plans. The study of non-tourism-specific policies is, therefore, crucial when examining adaptation issues for the tourism sector.

Stakeholders' level of commitment. Given its active involvement in climate change-related policies in the last decade or so, the focal government agency MNRE is showing a reasonable level of commitment to combating climate change. Political will is essential to the success of any policy agenda. MNRE's commitment is, therefore, a positive force to future adaptation efforts.

However, there seems to be neglect of the climate risks facing the tourism sector on the part of the industry stakeholders. As a government representative commented, "very few people in the [tourism] industry actually understand climate change". Because of Samoa's susceptibility to cyclones, especially after the 2009 tsunami, much attention is given to disaster management. Yet, climate change impacts, such as climate-related sea-level rise or deterioration of the marine environment, were hardly mentioned in any of the interviews conducted. The lack of understanding, or sometimes misunderstanding, is a barrier to adaptation. It needs to be removed by educating members of the industry about the risks that they are facing.

Resources availability. Funding has become available since 2009 for the implementation of tourism-specific adaptation strategies. This includes money coming from AusAID (part of AU\$4 million, approximately US\$3.6

million) and the LDC Fund (part of US\$1 million). Some of the funding will be used to hire a climate change project manager for STA who is expected to commence duties in the second half of 2010. It is hoped that the appointment will set the momentum for the tourism industry in the aspect of adaptation. Projects such as ADAPT can then materialise. "Without funding, there is not much we can do", said a government representative. The representative added that there have been many reports, strategies, and plans written for adaptation. Without funding, they are only documents sitting on a bookshelf.

Policy-Making Mechanisms

Policy-making mechanisms in general. The Samoan Government is a parliamentary democracy with a unicameral⁴ legislative assembly (a.k.a. the Fono or the Parliament) consisting of 49 members. The Prime Minister selects 12 of the parliamentarians, who are also ministers of 12 ministries in Samoa (not including the Ministry of Prime Minister and Cabinet) to form a Cabinet. The 12 ministries include MCIL and MNRE. MCIL and MNRE are two ministries particularly relevant to this study, as MCIL is the parent ministry of STA and SHA, and MNRE is the focal agency for climate change.

The Prime Minister and his Cabinet ministers collectively decide on the nation's policy and tactical direction. However, it should be noted that a CEO is hired for each ministry to oversee its day-to-day management and decision-making. These CEOs assert great influence on plans and strategies in their area of responsibility, and give advice to their ministers on major policies that require approval by the Cabinet.

At the local level, the 1990 Village Fono Act gives village councils authority over village law and order, health, and social issues. Local civil and criminal matters can be dealt with by the village chiefs (a.k.a. Matai).

Mechanisms of formulating climate change-related policies. Three different approaches have been used to formulate climate change policies in Samoa. First, there are policies that were initiated by foreign or international development agencies such as the UNDP and then managed by the Samoan Government – from developing policy options to deciding what to be implemented and how. The 2005 NAPA is an example of these policies. As explained in the Inventory of Policy section, NAPA is an initiative of the UNFCCC for LDCs. Samoa was one of the first countries in the world to receive funding from the UN's GEF under the LDC Fund to develop its own NAPA. A NCCCT was then formed. Chaired by an Assistant CEO of MNRE (the focal agency), the team comprises 38 representatives from various ministries, NGOs, the UN, and the NUS. NCCCT can be considered the steering committee for the nation's climate change agenda. However, details of the NAPA document were compiled by another team that worked under the auspices of NCCCT – the National Adaptation Programme of Action Task Team (NTT). The NTT had 22 government officials (mainly from the MNRE) and individuals from NGOs and the UN serving as members. Village communities were also consulted by means of workshops in the preparation of NAPA. The document laid important groundwork for the nation's climate change policies that followed. The Programme of Action was officially signed and endorsed by MNRE and the Ministry of Finance in 2007.

There are also climate change policies in Samoa that were “homegrown” and had not received *direct* input from foreign agencies. The 2007 NPCCC is an example of such policies. It establishes a framework to facilitate Samoa's responses to climate change, which include measures for mitigation and adaptation. This national policy was developed by MNRE and the NCCCT, and approved by the Cabinet in 2007. MNRE is responsible for administering the implementation of the policy. In other words, the mechanism for formulating this policy is that a draft policy was prepared by one ministry, and was then taken to the top hierarchy of the government by its minister to get approval and endorsement.

Finally, there are smaller scale but equally important strategies and plans related to climate change that are formulated and decided within MNRE or NCCCT. The Cabinet plays the role of an appraiser that monitors progress. However, more often than not, these strategies and plans are funded by foreign aid. In that case, the Aid Coordinating Committee (ACC) will come into play to assist the Cabinet with the appraisal by making recommendations to them. “NAPA 4” (i.e. phase 4 of the implementation of NAPA) is an example of these plans. In 2009, Samoa received some funding from AusAID for the continuous implementation of the country's climate change policies including NAPA. The detailed plan for the use of funding is still being prepared by officials in MNRE at the time of writing. As part of NAPA 4 involves developing adaptation strategies for the tourism sector, STA and SHA are engaged and consulted but industry-wide consultation is not undertaken. Once completed, the proposal will be taken to NCCCT for review. NCCCT will monitor the implementation progress and report to the ACC, which in turn will report to the Cabinet. Regardless of the

approach, MNRE and its assistant CEOs and CEO play a crucial role in the drafting, developing, and implementation of Samoa's climate change policies.

Policy Gaps and Policy Recommendations

Based on the findings reported so far, the authors believe that the existing policy environment is conducive to the tourism industry to adapt to climate change. Conduciveness of a policy environment can be evaluated based on (1) the level of commitment of key stakeholders to the policy agenda, (2) resource availability, and (3) the presence of an enabling policy mechanism (Wong et al., 2011). In the case of Samoa, the focal government agency MNRE is showing a reasonable level of commitment to combating climate change, although there seems to be neglect of the risks facing the tourism sector on the part of the industry stakeholders. In terms of resources, funding has become available since 2009 for the implementation of tourism adaptation strategies. This includes money coming from AusAID and the LDCF. Part of the money will be used to hire a climate change project manager for STA who is expected to commence duties in the second half of 2010. Finally, a national climate change policy framework (i.e. NPCCC) and an institutional arrangement for policy implementation, namely the NCCCT, have already been established. Based on these observations, one can argue that Samoa provides an arena that allows the development of effective adaptation strategies for the tourism industry.

However, Samoa and its tourism industry still have a long way to go in their adaptation journey. It was found in the Inventory of Policy section that most of the climate change initiatives in the country are policy-level adap-

tation. While they provide a good foundation for further actions, adaptation in the following aspects needs to be more comprehensively addressed (Scott et al., 2009):

- (1) Technical adaptation, e.g. climate proofing coastal infrastructure.
- (2) Business management, e.g. managing potential changes in demand; in the context of tourism, possible shifts in seasonality and the need to develop alternative tourism products.
- (3) Behavioural adaptation, e.g. adapting tourist activities according to climate variability.
- (4) Research and education, e.g. identifying the risks associated with climate change facing the tourism sector, and educating tourism operators about those risks.

Furthermore, STA and SHA should take a more proactive role in dealing with issues of vulnerability and resilience of the tourism sector, and start engaging the industry to collectively develop solutions. Our findings indicate that, at present, communication and relationship between the public agencies and members of the private sector need to be significantly strengthened.

Conclusion

Tourism makes substantial contribution to the economy of Samoa and to the livelihood of the local communities. The risks brought about by climate change are threatening the sustainability of the industry, thus, must be addressed now. This policy analysis exercise was aimed at providing an understanding of the existing climate change policies, policy-making environment and policy-making mechanisms in Samoa. Such an understanding

provides information on how future adaptation policy recommendations may be formulated and implemented in the next phase of the project.

Thirteen explicit and seven implicit policies in Samoa that are pertinent to climate change adaptation of the tourism sector have been identified. Major policies include NAPA (2005) and NPCCC (2007). The authors believe that the existing policy environment in Samoa is conducive to the tourism industry to adapt to climate change. This evaluation is based on the findings that (1) the focal government agency, MNRE, is showing a reasonable level of commitment to combating climate change, (2) financial resources are gradually being made available for policy implementation, and (3) the presence of an enabling policy mechanism, within which is a national climate change policy framework. The analysis also identified the policy gaps that are yet to be addressed by the Samoan government, in particular, STA and SHA, such as the need for stronger technical adaptation and communication with the private sector. It is important for these agencies to understand and address these gaps in order to reduce the industry's vulnerability and strengthen their resilience against the negative impacts of climate change.

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Notes

1 ENSO is a coupled ocean-atmosphere phenomenon and an important mode of climate variability (Intergovernmental Panel on Climate Change, 2007).

- 2 Fales are Samoan style houses, traditionally made from parts of coconut trees.
- 3 There is a climate change coordinator in every ministry. These coordinators relay climate change policy information to their respective department.
- 4 Unicameralism is the practice of having only one legislative or parliamentary chamber.

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