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## Current Issues in Tourism

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rcit20>

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Version of record first published: 23 Aug 2011.

To cite this article: Louise Munk Klint, Emma Wong, Min Jiang, Terry Delacy, David Harrison & Dale Dominey-Howes (2012): Climate change adaptation in the Pacific Island tourism sector: analysing the policy environment in Vanuatu, *Current Issues in Tourism*, 15:3, 247-274

To link to this article: <http://dx.doi.org/10.1080/13683500.2011.608841>

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## Climate change adaptation in the Pacific Island tourism sector: analysing the policy environment in Vanuatu

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(Received 27 October 2010; final version received 25 July 2011)

Tourism is a growing economic sector in the South Pacific providing the region with great potential for economic development. Vanuatu and its neighbouring Small Island Developing States and Territories experience a high vulnerability to climate change impacts. The tourism sector in Vanuatu is particularly vulnerable, and it needs to develop and implement effective adaptation strategies to reduce climate change risks. Policies play an important role by providing the platform on which adaptation can occur and resilience be built. This study examines the policy environment in Vanuatu for its conduciveness to climate change adaptation. It identifies the types of adaptation processes (explicit or implicit) and types of adaptation measures (technical, business management, behavioural, policy, and research and education) and critically analyses the current tourism-related policies for their effectiveness in assisting the sector to address climate change. It is found that the majority of policies identified deal with climate change through implicit adaptation processes and mainly through the use of policy and research and education measures. The authors argue that in order to strengthen the resilience of the tourism industry, the Government of Vanuatu needs to develop and implement explicit climate change adaptation policies for the tourism sector.

**Keywords:** tourism; climate change; adaptation; adaptive capacity; policies; Vanuatu

### Introduction

Tourism is a growing market in the Pacific region providing great potential for economic development. The contribution of tourism to gross domestic product (GDP) in Pacific Island Countries and Territories (PICTs) is typically in the order of 20%, and tourism is a key employer in the region, providing approximately 15% of the jobs (United Nations Economic and Social Commission for Asia and the Pacific, 2009). With limited potential for other development opportunities, tourism has been a welcome solution for development for many PICTs (Harrison, 2004). Nevertheless, the dependence on tourism is highest in nations possessing few natural resources and with climate and topographies that are attractive to tourists (Harrison, 2001).

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Small Island Developing States and Territories (or SIDSTs) are the most vulnerable of all nations to the impacts of climate change<sup>1</sup> (IPCC, 2007b; Jiang, DeLacy, & Noakes, 2009a; Méheux, Dominey-Howes, & Lloyd, 2007; Mirza, 2003). Sem and Moore (2009) identified eight characteristics that make SIDSTs particularly vulnerable to climate change ranging from limited natural resources to limited funds and human resource skills, and as a recent Oxfam Report states, 'climate change has the potential to affect almost every issue linked to poverty and development in the Pacific' (MacLellan et al., 2009, p. 7).

Mitigation and adaptation are the two key approaches to manage risks from climate change. In order to slow or prevent climate change, mitigation aims to reduce greenhouse gas (GHG) emissions, whereas adaptation measures lessen the vulnerability to the effect of climate change (Sanderson & Islam, 2007). Adaptation is the principal way to deal with the unavoidable consequences of climate change in the short term. It can be seen as a mechanism of managing risks, reducing vulnerability by adjusting economic activity and improving business certainty (Council of Australian Governments, 2007). Wall and Badke (1994) emphasised the need for further policy analysis 'to reduce uncertainties, further understanding, assess implications and enable the tourism industry to adapt to changing circumstances' (p. 203).

With a view of recommending an appropriate policy setting for PICTs to assist their tourism sector adapt to climate change, a research team established under an Australian Development Research Award has reviewed and analysed the existing relevant policy environment in PICTs. The objectives of the policy analysis were (1) to observe the policy-making environment; (2) to examine the policy-making mechanisms and implementation; (3) to create an inventory of policies pertinent to PICT tourism climate adaptation; and (4) to identify policy gaps and provide input for the evaluation of adaptive capacity of the tourism sector.

In this paper, we examine the policy environment in Vanuatu, a PICT where tourism is the dominant sector (Asian Development Bank, 2009; Méheux & Parker, 2004), for its conduciveness to climate change adaptation. Understanding the policy environment and its conduciveness to climate change adaptation is an important contribution as it allows for the identification of policy gaps and issues and provides the foundation for recommendation for appropriate adaptation measures. Through a comparison with other PICTs' policy environments, generalisations can be made and effective climate change adaptation strategies for the PICTs' tourism sector can be developed and thereby help protect local livelihoods.

This paper briefly reviews climate change adaptation literature related to the tourism sector, outlines the projected climate change impacts for the Pacific region with particular reference to Vanuatu, and discusses how these might influence the tourism sector. The next section describes the methodology and methods used to review and analyse the relevant policy environment in Vanuatu. This paper then presents the policy analysis and discusses how conducive the policies are for Vanuatu's tourism sector to adapt to climate change. Finally, it makes recommendations on possible policy reform.

### **Climate change and tourism**

Even though there is still much uncertainty in relation to the exact nature of anthropogenic climate change, we now have enough knowledge at hand to accept that human-induced climate change is both real and accelerating. There is even more uncertainty as to the detail of the resultant physical, biological, economic, political, and social impacts, but the risks of very severe consequences are high (Garnaut, 2008; Stern, 2006). It is widely

accepted that adaptation measures need to be taken now to address these climate change risks (Dazé, Ambrose, & Ehrhardt, 2009; Green, 2008; IPCC, 2007b; Sem & Moore, 2009; Pearman, 2008; Preston, Suppiah, Macadam, & Bathols, 2006). Nevertheless, it is difficult to link singular events with climate change (Winn, Kirchgeorg, Griffiths, Linnenluecke, & Günther, 2010) and, therefore, we cannot analytically distinguish readiness (or the lack of) to adapt to climate change from a readiness to adapt to extreme climatic events (irrespective of whether or not the event is caused by climate change).

Climate change is affecting the tourism sector now and will continue to impact tourism around the world at an increasing rate (Gössling & Hall, 2006; Payet, 2008; Scott et al., 2008a). The natural environment in the form of marine and terrestrial attractions is a crucial resource (specifically, 'ecosystem goods and services'; de Groot, Wilson, & Boumans, 2002) for the development of the tourism sector in PICTs (Harrison, 2003, 2004). Pacific SIDSTs have been identified as a hotspot for vulnerability (Jiang et al., 2009a; Scott et al., 2008a), and the ecosystems on which most PICT tourism activity is based will be impacted by climate change (Becken & Hay, 2007). 'Climate's impact on tourism can be physical, physiological and psychological' (Moore, 2010, p. 495). For example, even modest ocean warming causes coral bleaching (Riegl, Bruckner, Coles, Renaud, & Dodge, 2009). The warming of the oceans can also affect ocean acidity and consequently the calcium density of corals, may alter distribution and abundance of fish species, and have an effect on the breeding of sea birds and the incubation of marine turtle eggs (Zeppel, 2011). Sea-level rise and resultant inundation from storm surge threaten coastal assets (Sem & Moore, 2009). Storms pose a real threat to tourism infrastructure (Gössling & Hall, 2006) and have been predicted to increase in intensity (Preston et al., 2006). On top of these impacts on tourism supply, tourism demand will also be affected by climate change.

Tourism demand can be impacted in a number of ways. International action to mitigate GHG emissions will increase travel costs, especially for long-haul travel, and ethical concerns regarding air transport will affect consumer demand for different destinations, potentially impacting on PICT tourism (DeLacy & Lipman, 2010; Hall & Higham, 2005). A recent study also highlighted the possibility that short-haul travel may also be impacted by climate change perceptions and ethical considerations (Cohen & Higham, 2010). Due to the isolation from international tourism markets, island destinations may be more vulnerable to regulatory structures implemented in the transport sector, particularly in relation to aviation emissions (Hall, 2010). Milder winters in developed countries in the north may also influence the demand side through a decrease in the 'need' to escape the northern winters (Belle & Bramwell, 2005) or through a reduced 'appeal of these islands as tourist destinations' (Hall & Higham, 2005, p. 53). Consequently, the PICTs' tourism sector needs to urgently address climate change to minimise its potential risk.

To manage the risks and reduce their vulnerability, PICTs will need to develop appropriate frameworks for use by the local tourism industry to adapt to climate change. For example, *institutional pluralism* is needed to develop the public space required to deal with the complexity of a changing climate, as combined efforts will allow for smarter and more effective policies that could not have been developed by individual institutions or policy-makers to be developed (Bright, 1999). National policies will need to take account of this urgent need to develop such frameworks and be conducive to their implementation in the medium to long term. Nevertheless, current literature lacks attention to the role and responsibilities of tourism destination managers in engaging visitors and residents in managing the destination sustainably (Jamal & Watt, 2011). For example, the role of destination marketing organisations has received little attention in relation to crisis events and knowledge management (Blackman, Kennedy, & Ritchie, 2011).

Tourism has been defined as

the study of man (the tourist) away from his[/hers] usual habitat, of the touristic apparatus and networks responding to his[/hers] various needs, and of the ordinary (where the tourist is coming from) and nonordinary (where the tourist goes to) worlds and their dialectic relationships. (Jafari, 2000, p. 585)

This definition highlights the need to look at tourism from a systems approach. One of the most renowned tourism system models is that of Neil Leiper – the ‘basic whole tourism system’ (Weaver & Oppermann, 2000). The five basic elements of Leiper’s (2004) tourism system model include (1) tourists; (2) tourist-generating regions (TGRs); (3) tourist destination regions (TDRs); (4) transit route (TR); and (5) tourism industries. These elements do not exist in a vacuum; they are embedded within a wider socio-political, economic, and environmental context – a notion from the vulnerability science that is termed the ‘coupled human–environment system’ (Turner et al., 2003) – that shapes every aspect of the system from the tourists’ desires and expectations through to legal parameters of travel (visa requirements, airline emission standards, and flight curfews), tourism planning and policy structures and processes, and economic revenue flows that run through the economic goods and services value chain. Tourism activity does centre on the destination, but the impact and consequences of shocks and more slow-onset stressors such as global warming and sea-level rise on one part of the system reverberate throughout the entire system (Calgaro & Lloyd, 2008). This echo of effects highlights the close integration of ‘the world’s economies, transport systems and media and communication networks’ (Hall, 2010, p. 401).

Accordingly, it is imperative to identify the main components that make up the destination tourism system and to understand the interlinkages and relationships that exist between these elements and the contextual environments within which the system operates. A key component of the contextual environments is the policy environment of government within which the tourism system sits (Gunn, 1994). The influence of governmental policy and the role of government in tourism have been of scholarly interest for several decades (Hall, 2011). It is recognised that a nation’s policies, whether at a local or national level, will influence the general functioning of a tourism system (Gunn, 1994). It is not only tourism policies that affect the tourism system, more general policy decisions also affect the environment in which tourism operates (Kerr, 2003). This is supported by Hall (2009), who stated that ‘the policy-making does not occur in a vacuum’ (p. 240) and policies are influenced by other policies. Nevertheless, the implications of policies from these non-touristic policy domains for the tourism sector are rarely considered (Bramwell, 2011). Only a few countries in the world have developed specific tourism climate change adaptation policies (Scott et al., 2008a). However, numerous governments have developed generic climate change policies, many of which affect the tourism sector.

### **Policy analysis: a requirement to understand the tourism sector’s ability to adapt**

Understanding the tourism sector’s ability to adapt to climate change requires an understanding of policies. As has long been recognised, governmental policies influence the tourism sector through hindering or fostering tourism development (Gunn, 1994). Yet at the same time, tourism has become an intrinsic element of governments in developed as well as developing countries (Hall & Jenkins, 1995).

Policies are defined as the course of action or inaction and decision or non-decision taken by public authorities to address a particular problem, set of problems, concerns, or

opportunities (Hall & Jenkins, 1995). Thereby, policy can be seen as the position of a government on significant issues (Dredge & Jenkins, 2007) and is, therefore, what the government decides to do or not to do (Dye, 1978). This definition, however, is limited in the way that it only addresses the influence of government on policy. Perhaps a better definition is that policy is the dynamic cooperation of policy actors that have various interests and the consequent legitimisation of a shared view through the institutions of government (Considine, 1994). This view is further supported by Dredge and Jenkins (2007), who argued that tourism-relevant policies are also developed by non-governmental organisations (NGOs), particularly environmental NGOs, and the tourism sector. Thereby, the act of formulating and implementing policies in such a dynamic environment makes public policy a process (Hall & Jenkins, 1995). A policy analysis, therefore, should not only be confined to documented policies, but also look at the policy-making environment and the policy mechanisms and involve diverse stakeholders. Consequently, an understanding of the policy-making environment and the power and interest dynamics, the policy mechanisms, the policies, and the policy gaps will provide sufficient information to indicate the conduciveness of the policy environment to climate change adaptation.

Climate change is a multi-scale policy problem requiring implementation of policies (Hall, 2009). Although awareness of climate change is important, it will not ensure action; in addition, *climate-smart development* policies are required to succeed in addressing climate change (The World Bank, 2010). If these SIDSTs fail to invest in policies that facilitate a response to climate change, they may be left unprepared to cope with the adverse changes and may, as a result of this, increase the probability of severe consequences (Belle & Bramwell, 2005).

### **Adaptation to climate change in the tourism sector**

Climate change adaptation has been defined by the IPCC (2007b) as ‘the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities’ (p. 6). As this definition suggests, adaptation is not just about limiting the costs of climate change, but also about identifying the opportunities. Adaptation has a connotation of evolution through its reforming, restructuring, and reorganising of a phenomenon to suit a new context or situation (Haque & Burton, 2005). It can occur on a spectrum ranging from simple measures, such as the replanting of mangroves, to more involved and costly measures, such as the construction of a seawall. Furthermore, aiming to minimise negative impacts as well as identifying and taking advantage of opportunities or potential positive changes resulting from climate change, adaptation involves different tourism stakeholders at all levels from the individual to the organisation, both public and private sectors, as well as households and communities (Simpson, Gössling, Scott, Hall, & Gladin, 2008). Consequently, to ensure that adaptation is successful, an understanding of the strategies to prepare for, respond to, and recover from climate change is required (Barnett, 2001).

Scott, de Freitas, and Matzarakis (2008b) highlighted five types of adaptation measures that are relevant to the tourism sector: (1) technical – that is, changes made to physical infrastructure or provisions; (2) business management – that is, changes made by the private sectors in their businesses; (3) behavioural – that is, behavioural changes made by tourists or communities; (4) policy – that is, changes in government plans or strategies; and (5) research and education – that is, initiatives to strengthen the understanding of adaptation, explore adaptation options, and educate communities. Apart from the types of adaptations, there is also a difference in the processes by which they are implemented.

Hall and Higham (2005) identified that adaptation to climate change involves different processes 'in the case of actual negative changes in the resource base for tourism that could be caused by climate change' (p. 212): explicit and implicit. Explicit climate change adaptation processes occur within a climate policy context, whereas implicit climate change adaptation processes are not linked to climate policies. Consequently, climate change adaptation in tourism can be implemented through five types of adaptations via explicit and/or implicit adaptation processes.

### **Vanuatu: an archipelago in the South Pacific vulnerable to climate change**

Vanuatu is an archipelago consisting of 83 islands in the South Pacific (Figure 1). The nation covers 680,000 km<sup>2</sup> of maritime zone and 12,336 km<sup>2</sup> of land area with a coastline of 2528 km (Republic of Vanuatu, Global Environment Facility [GEF], United Nations Development Program [UNDP], United Nations Framework Convention on Climate Change [UNFCCC], & National Advisory Committee on Climate Change [NACCC], 2007). The islands are primarily volcanic in nature with nine active volcanoes. Two are submarine and seven are located on land with the most famous one being Mt. Yasur on the island of Tanna (southern part of Vanuatu) and the most dangerous one being Garet on the island of Gaua (northern part of Vanuatu) (Harewood, Chinula, Talbot, Carillet, & Sorokin, 2006). The population of Vanuatu has tripled in the last 40 years with 234,043 residents in 2009; of which, 76% lived in rural areas and 24% lived in urban areas (Vanuatu National Statistics Office [VNSO], 2009a). The population and infrastructure are primarily located in low-lying coastal areas, making the nation more vulnerable to cyclones and associated storm surges, sea-level rise (Global Environment Facility [GEF], United Nations Development Program [UNDP], & Secretariat of the Pacific Regional Environment Programme [SPREP], 2009), and coastal erosion and inundation (Republic of Vanuatu et al., 2007).

Tourism represents a significant economic sector. Agriculture and tourism represent the two key productive sectors of Vanuatu (GEF et al, 2009; Republic of Vanuatu et al., 2007; United Nations Development Program [UNEP], 2005), with tourism also representing the key foreign exchange earner (Méheux & Parker, 2004). In 2007, tourism represented 15.3% of the country's GDP and employed directly 14.1% of the country's population (World Travel & Tourism Council, 2009). As one of the few viable sectors, tourism allows for the differentiation and exclusivity of products needed to charge high prices that can cover some of the costs related to the risks that SIDSTs face (Commonwealth of Australia, 2006).

The nation offers great tourism attractiveness in the form of different cultures, volcanoes, pristine beaches, and underwater environments (Vanuatu Tourism Office, 2009). From 1995 to 2008, the tourism sector experienced an annual average growth of 6.45% with total visitor arrivals reaching 196,795 in 2008 (VNSO, 2009b). Approximately half of the international tourism arrivals are from cruise ships and the other half are from air arrivals with a very small number of arrivals coming from yachts (TRIP Consultants, 2008). The three main destinations of Vanuatu are the islands of Efate, Tanna, and Espiritú Santo (VNSO, 2007), which are also the most accessible islands of Vanuatu with international airports on each island (Figure 1). Port Vila is the main gateway to Vanuatu, whereas Tanna and Espiritú Santo are the two other most visited islands in Vanuatu. Although tourism is a growing sector, the changing climate will also have an impact on this important economic sector.

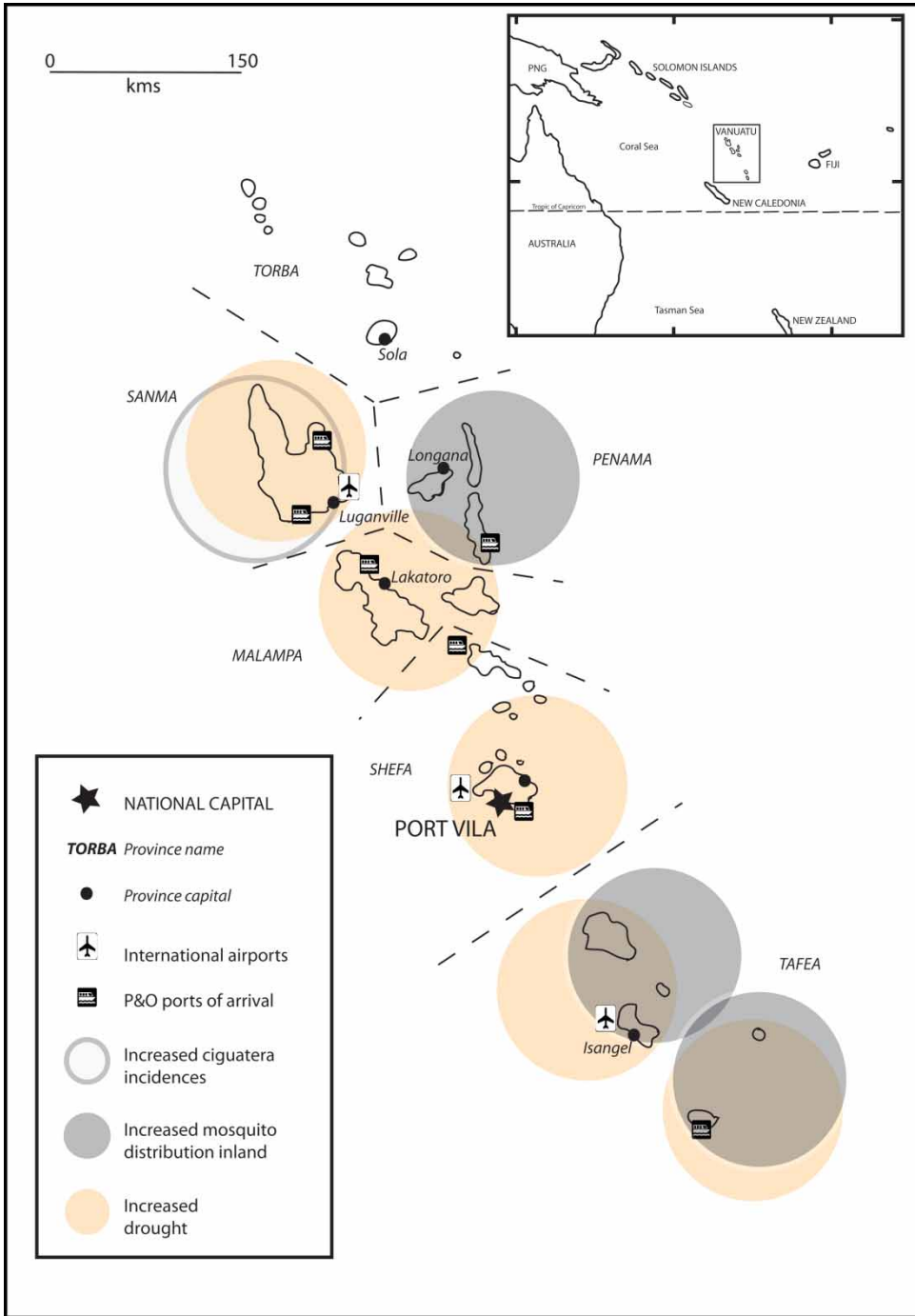


Figure 1. Map of the Republic of Vanuatu.



The main climate change issues and vulnerabilities identified by the Republic of Vanuatu et al. (2007) as affecting all the provinces of Vanuatu are coastal erosion, tropical cyclones, flooding, salt water intrusion, scarcity of water resources, landslides associated with prolonged and intense rainfall, declining crop production, and changes in temperatures. In addition, some provinces of Vanuatu will be impacted by an expansion of mosquito distribution inland, increased ciguatera incidences (food poisoning caused by the ingestion of seafood with ciguatoxin), and drought, as shown in Figure 1.

Vanuatu is highly vulnerable to climate change due to its status as an SIDST (UN-OHRLLS, 2010) and its status as a least developed country (LDC) (Sem & Moore, 2009). The IPCC (2007b) stated with very high confidence<sup>2</sup> that small islands are 'especially vulnerable to the effects of climate change, sea-level rise, and extreme events' (p. 689) due to a number of country characteristics. Eight SIDST characteristics have been identified: (1) limited size; (2) limited natural resources; (3) natural hazards; (4) limited water supply; (5) low economic resilience; (6) population growth and density; (7) infrastructure; and (8) limited funds and human resource skills (Sem & Moore, 2009).

As identified in the literature, SIDST characteristics can contribute to these nations' vulnerability to climate change (Sem & Moore, 2009; Scheyvens & Momsen, 2008; IPCC, 2007b). For example, the limited population and economic and geographical size of most SIDSTs provide many constraints. For tourism, it means that there are limited opportunities for expansion of infrastructure and the development of new natural attractions. Thus, this characteristic means that the Government of Vanuatu will be facing an additional challenge in making its small size an advantage in dealing with climate change instead of a vulnerable feature of the nation.

SIDSTs also have a number of strengths, and adaptation policies must identify these strengths and develop strategies that build on these strengths. Scheyvens and Momsen (2008) highlighted six strengths of small island states: (1) beauty; (2) good economic performance; (3) high levels of cultural, social, and natural capital; (4) respect for traditional, holistic approaches to development; and (5) strong international linkages and political strength. Although limited natural resources and limited funds and human resource skills can seem to be at odds with high levels of cultural, social, and natural capital at first, the focus should be on identifying the strengths of the nation's limitations. For example, although the island may be small and, therefore, have limited natural resources, this also offers a unique selling point for tourism – the pristine environments of the island combined with the smallness make it more exotic and can then turn it into a strength (see Scheyvens & Momsen, 2008, for more examples). Consequently, climate change adaptation policies in Vanuatu should take account of the vulnerabilities of the nation and identify and build on its strengths.

### **The impact of climate change on Vanuatu's tourism sector**

Climate change will have both direct and indirect impacts on the tourism sector in Vanuatu. Observations have shown an increase in the frequency of cyclones, a gradual increase in temperatures, and a gradual decline in rainfall (Republic of Vanuatu et al., 2007). With safe and reliable drinking water being a critical issue in Vanuatu (UNEP, 2005), increases in temperatures and decline in rainfall will increase the demand for potable water and thereby further exacerbate water shortages (GEF et al., 2009; Republic of Vanuatu et al., 2007), which is an issue of critical relevance to the tourism sector due to its voracious consumption of water (Belle & Bramwell, 2005). Coastal infrastructure is already experiencing sensitivity due to enhanced human activities, such as sand mining and the removal of coastal vegetation (e.g. mangroves), and will be particularly vulnerable to increases in the frequency

and intensity of cyclones, storm surges (Republic of Vanuatu et al., 2007), and sea-level rise (GEF et al., 2009). Furthermore, climate change will affect the natural attractions of Vanuatu through coral bleaching, sea-level rise, coastal inundation, and coastal erosion (Jiang et al., 2009a). This coastal deterioration will expectedly cause a decrease in the attractiveness of the tourism destination (National Institute of Water and Atmospheric Research, 2007).

Apart from the impacts on natural attractions, studies have shown that climate change policies and perceptions may impact on tourism demand and the aviation sector (Cohen & Higham, 2010; DeLacy & Lipman, 2010; Forsyth, Dwyer, & Spurr, 2007), indicating that in addition to the impact of a possible decrease in attractiveness, Vanuatu may also be facing changes in international travel flows. Climate is a key factor when tourists decide on their preferred destination (Uyarra et al., 2005). This is also important in the case of Vanuatu, as the most important decision-making factor for visitors to come to Vanuatu was 'friendly people', and 'climate' ranked second in the Vanuatu Visitor Survey Report 2004.<sup>3</sup> Furthermore, the most important type of activity carried out by visitors while in Vanuatu was snorkelling (VNSO, 2007). From this, one can assume that climate change and its related impacts will put pressure on visitor arrivals in Vanuatu. Another study has projected that climate change will cause tourists to travel to countries near the poles or to mountainous areas (Hamilton, Maddison, & Tol, 2005). This projected tourism trend may or may not present opportunities to the high islands of Vanuatu (e.g. the highest point in Vanuatu is Mt. Tabwemasana at 1879 m on the island of Espiritú Santo; Harewood et al., 2006). It is obvious that climate change adaptation will be vital for this nation and its tourism sector to cope with the impacts of a changing climate.

### **Methods: reviewing and analysing the relevant policy environment in Vanuatu**

In order to understand the policy context for the tourism sector's adaptation to climate change, our research focused on policies in the following four domains: (1) climate change; (2) environment; (3) tourism; and (4) disaster management (Jiang et al., 2009b). We applied the conceptual adaptation framework to our policy analysis with the five adaptation types identified within the objectives, strategies, and actions of the policies. The *explicit policies* were those that were, wholly or partly, formulated with the intention to address climate change, and *implicit policies* were those that were formulated with the intention to address issues other than climate change, but have components that were pertinent to climate change.

Data were collected during a fieldtrip to Vanuatu in November and December 2009. Information was collected from both secondary and primary sources. Secondary resources provided the background information about the geography, history, politics and institutional structure, economy, and climate change-related hazards of Vanuatu as well as established an outline of Vanuatu's tourism system. An inventory of policies that were pertinent to climate change adaptation of the tourism sector was created by referring to official policy documents or to other media (e.g. news reports and research papers).

Primary data were collected to examine policy issues from multiple perspectives and to provide insights into the policy process that may be too sensitive to be documented. They were obtained by means of semi-structured in-depth interviews with key informants (Table 1) selected through purposeful sampling methods. The use of purposeful sampling techniques allowed for selecting information-rich cases that could provide much information about the issues being studied (Bird, 2009; Patton, 2002). Nevertheless, snowball sampling techniques were also utilised when well-situated people identified other information-rich key informants (Patton, 2002) that had not been identified in the purposeful sampling.

Table 1. Data sample.

Interview groups	Number of interviews
National and local government bodies	7
Tourism industry	14
Donor and development organisations	1
Non-governmental organisations	4
Research institutes or universities	1
Total	27

In total, 27 interviews were held with representatives of five stakeholder groups: national and local government bodies, tourism industry, donor and development organisations, NGOs, and research institutes or universities (Table 1). As the key objectives of the research related to the tourism sector and public policy, the interviews concentrated on industry and government actors. The interviews were, on average, 40 minutes in length. The interview structure contained the following elements: (1) Introduction; (2) Scoping; (3) Policy Purpose; (4) Conceptualisation; (5) Decision; (6) Implementation and Coordination; (7) Outcome; and (8) Implications for Climate Change Adaptation for the Tourism Sector. Interviewing stopped when the data saturation point was reached (Minichiello, Aroni, Timewell, & Alexander, 1995), that is, when the themes emerging from the interviews started to repeat themselves.

The interviews were analysed using the qualitative data analysis software NVivo. Themes were identified from the study objectives and the climate change adaptation framework and the interview data analysed through a theme analysis (Patton, 2002). Themes included tourism, policies, policy type (explicit versus implicit), the five adaptation types (i.e. technical, business management, behavioural, policy, and research and education), policy environment, policy process, and implications for policies (e.g. awareness, transparency, implementation, and enforcement). The written policies were analysed using the climate change adaptation framework (explicit versus implicit and adaptation types) and their ability to address SIDST characteristics.

### **Results and discussion: Vanuatu's policy environment: how conducive is it to developing an adaptation framework for the tourism sector?**

The primary aim of this paper was to examine the policy environment for its conduciveness to climate change adaptation. As the key focus of the policy analysis was to identify how conducive the policy environment is to developing an adaptation framework for the tourism sector, an identification of the tourism system in Vanuatu was required. Thereafter, the policy analysis involved four key objectives: (1) to observe the policy-making environment; (2) to examine the policy-making mechanisms and implementation; (3) to create an inventory of policies pertinent to PICT tourism climate adaptation; and (4) to identify policy gaps and provide input for the evaluation of adaptive capacity of the tourism sector. The following section provides the results from the examination of the tourism system and the policy analysis.

#### ***Vanuatu's tourism system***

The involvement of all stakeholders of the tourism system in the development of a destination adaptation strategy is essential to ensure its successful implementation (Jopp, DeLacy,

& Mair, 2010; Mirza, 2003; Simpson et al., 2008). 'Implementation is the process by which policy is translated into action' (Hall, 2009, p. 235). However, the acceptance of any policy measures will depend on the views of individual stakeholders (Belle & Bramwell, 2005). Consequently, an understanding of the tourism system in Vanuatu is crucial in order to review the related policy environment.

Leiper's (2004) model is used to briefly describe the tourism system in Vanuatu under the three geographical elements (i.e. TGR, TR, and TDR) (Figure 2). Not surprisingly, Vanuatu's tourism system is dependent on regional markets (like many other SIDSTs in the Pacific; Harrison, 2004) linked by air and cruise ship transport and is built around its natural and cultural resource assets, its infrastructure, which is mainly coastal, and its related government agencies and industry bodies that are very much in their early stages of development.

Within this context of Vanuatu's tourism system, Vanuatu's policy environment is analysed to examine the policy-making environment, observe the policy-making mechanisms and implementation, create an inventory of policies pertinent to PICT tourism climate adaptation, identify policy gaps, and consequently to provide input for the evaluation of adaptive capacity of the tourism sector.

### ***The policy-making environment***

Vanuatu is governed by the Constitution of Vanuatu, which was established in 1980. The Constitution sets out that 'The Republic of Vanuatu is a sovereign democratic state' (The People of Vanuatu, 1980, p. 4). As stated by the Parliament of Vanuatu (2009), the nation's government structure is based on the Westminster model of Government. Key features of the Westminster model become apparent in the political structure of the Government of Vanuatu. The main figure head of Vanuatu is the president, who is elected for a 5-year term and has mainly ceremonial powers, whereas the prime minister is the head of government, and together with the elected ministers they represent the executive Government of Vanuatu (Parliament of Vanuatu, 2009).

The Government of Vanuatu is divided into 12 government ministries and six provincial governments. The three ministries of key importance to the tourism sector's adaptation to climate change are the Ministry of Public Works (parent ministry of the Ports & Harbour Department, Meteorological Services Unit, and Airports Vanuatu Ltd.); the Ministry of Lands and Natural Resources (parent ministry of the Environment Department); and the Ministry of Trades, Commerce, Industry and Tourism (parent ministry of the National Tourism Development Office (NTDO), the Vanuatu Tourism Office (VTO), and the Vanuatu Investment Promotion Authority (VIPA)), as highlighted in Figure 3.

The Ministry of Trades, Commerce, Industry and Tourism is the most important ministry for the tourism sector, as it includes the NTDO, the VTO, and the VIPA. How the image of the tourism sector is portrayed is a highly political and contentious issue addressing questions such as 'what is marketed, who does the marketing, and how "attractions" are presented' (Harrison, 2004, p. 21). A tourism statutory body was established in Vanuatu under the Vanuatu Tourism Office Act in 1982. The main strategic directives of a tourism statutory authority are aimed at commercial activities and marketing (Dredge & Jenkins, 2007). The VTO is mainly oriented towards marketing of Vanuatu in domestic and overseas markets and thereby aims to promote and encourage the sustainable development of tourism in Vanuatu. The NTDO is the ministerial department for tourism planning and policy-making and works closely with the VTO. As sustainable tourism must be planned, organised, implemented, and monitored (Harrison, 2004), the level of success

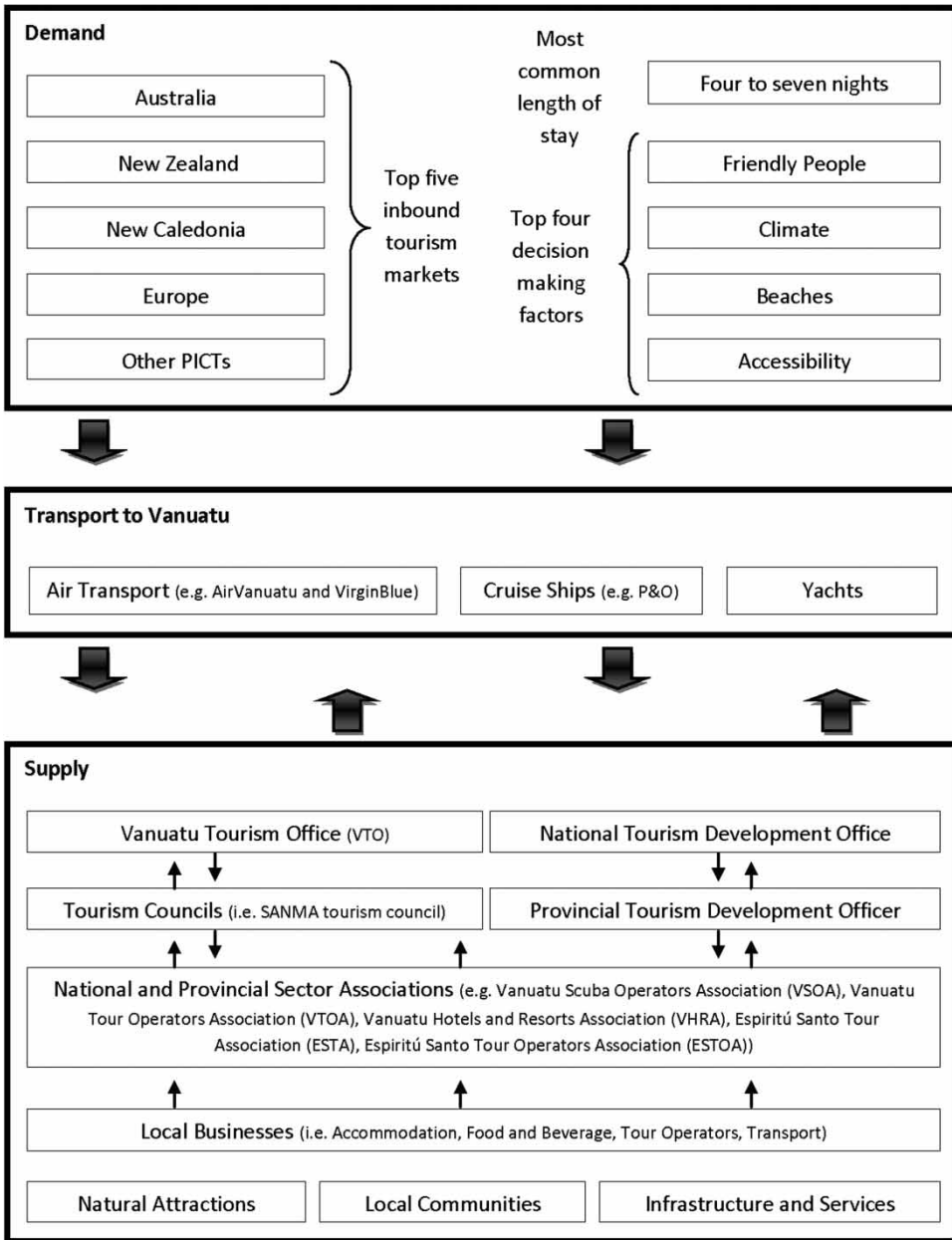


Figure 2. Overview of the tourism system in Vanuatu (simplified version).

of this collaborative approach is vital to the tourism sector in Vanuatu. The VIPA is the body controlling and promoting foreign investment in Vanuatu and consequently also plays a significant role in the tourism sector, which involves a large percentage of foreign investors. One interviewee from the industry group mentioned that 50% of the Vanuatu Tour Operators Association’s members are foreigners, thereby highlighting the importance of the involvement of VIPA.

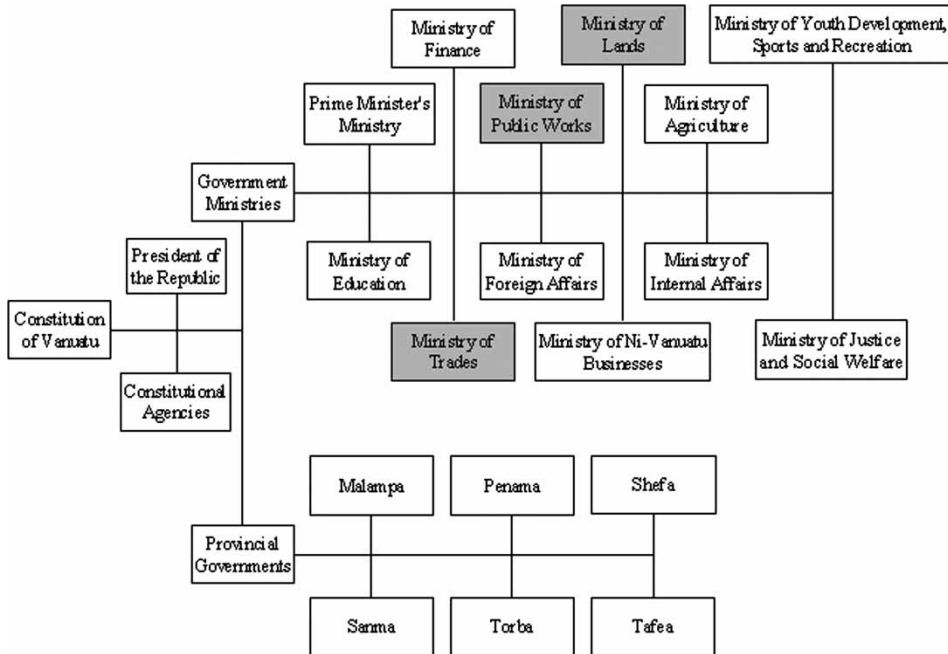


Figure 3. Overarching government structure in Vanuatu (developed from primary data and Vanuatu Government Website Developer, 2010).

The effectiveness achieved by the governance depends on factors such as the institutional structures (as outlined above) and the institutional processes in place and how effective these are (Beaumont & Dredge, 2010). It is important to understand these institutional arrangements, as they help determine the ways in which the state operates within the tourism policy arena (Hall, 2011). Furthermore, destinations with effective governance are more likely to succeed in promoting a sustainable tourism destination than destinations where effective governance is not present (Bramwell, 2011). With an understanding of the government structure, under which policies are developed, we move to understanding the policy-making mechanisms.

***Policy-making mechanisms: from conceptualisation to implementation***

*Policy-making as a process*

The formulation of policies can be impacted by issues or events unfolding throughout time, the processing of these events by the different stakeholders, and the influence of these stakeholders in the decision-making (Dredge & Jenkins, 2007). In the majority of the interviews, there seemed to be a general lack of awareness within the tourism industry of the policies relevant to the sector, with comments such as ‘policies and strategies are lacking, many are focused on boosting economy’ (NGO interviewee), ‘I am not aware of any policies’ (tourism industry interviewee), and ‘there is no awareness of policies’ (tourism industry interviewee). Furthermore, government officials raised concerns with regard to the drafting of policies. As an example, an interviewee from the government pool indicated that the climate change policy had been in drafting stage since 2002 and had not been completed due to a disagreement as to whether the policy document and

the implementation strategy should be in one or two documents. With a limited understanding of the current policies, it was difficult to identify the events or issues that have caused the various policies to be developed in the first place.

Nevertheless, there were some examples where events had taken place and influenced the policy-making, such as those regarding the ban of the coconut crab in the Sanma province. An interviewee from the NGOs group mentioned:

A researcher from Western Australia, Rick Fletcher, did research in the early 90s upwards and found that the population of these crabs had declined significantly and rapidly. I used to work as the Sanma Environmental Officer – a provincial post focused on marine biodiversity, terrestrial biodiversity and freshwater biodiversity. I cooperated with Rick Fletcher in forming the Coconut Crab Taskforce and involved other agencies, including Fisheries Officers, Land Officers and NGOs . . . Previously the Government had an open and close season for crab-fishing. However, insufficient resources to monitor that only quota (2000 crabs in open season) was caught resulted in people consuming more than this. Therefore, consultation was held with local communities to ensure conservation of crabs. As a result, the Provincial Fisheries Act allowed for a ban of the Coconut Crabs being caught. A NZ lawyer, Donna Lowell helped with this.

This statement is an example of the policy-making as a process, as highlighted by Dredge and Jenkins (2007): (1) the events in form of a researcher's study and the limited capacity of governmental monitoring of fishing quotas which had resulted in overfishing of the coconut crab; (2) the different stakeholders include the researcher, the government official, the local community, and the NZ lawyer, who all were concerned enough by the decline in coconut crab populations to act on this; (3) these stakeholders had enough influence to enforce a ban of the coconut crab under the current provincial fisheries' legislation. This is one example of the policies identified, which is pertinent to climate change adaptation.

#### *Issues of transparency or implementation of policies?*

From an analysis of the primary data collected, it becomes obvious that there is a limited knowledge of the government policies within the tourism industry. One interviewee claimed that they are 'not aware of any policies, as they are completely inactive'. Another interviewee from the industry said that 'policies are in place, but not implemented', and a third industry player said that 'nothing ever happens – it just gets shelved' when discussing policy guidelines developed by international donor organisations. Thus, although there seems to be some awareness of the presence of documents, either the implementation of these is not transparent or the policies are not implemented. If it is a lack of awareness, it could have a significant effect on stakeholder collaboration and the actual implementation of the policies. As suggested by Bramwell and Sharman (1999), the stakeholders' awareness of positive benefits of a given policy may entice participation in the policy-making process. For example, if stakeholders do not see the need for the particular policy, 'there is little likelihood of action taking place only because a study and report were prepared' (Gunn, 1994, p. 110). If it relates to a lack of implementation or involvement in the earlier phases of the policy-making, this may result in adversarial stakeholders (Bramwell & Sharman, 1999), which depending on the power of the adversarial stakeholders may impact the success of the implementation stage of policy. The level of power to influence the policy process is influenced by factors such as access to financial resources, expertise, public relations, media, knowledge, and amount of time available (Hall, 2009). Further

studies are required in order to assess (1) what causes this general lack of awareness of policies within the tourism industry; (2) the successfulness of policy implementation; and (3) if this will facilitate or hinder climate change adaptation.

*Effective policies require a collaborative approach*

Development of effective climate change policies requires enormous coordination across the government and considerable sophistication in implementation. The implementation of policies is complicated by the complexity of government structures, the interplay of dynamic social and economic factors, and the involvement of multiple government agencies (Dredge & Jenkins, 2007). An example of this complexity can be seen within the government, as one interviewee highlighted the need for all government departments to work together, as ‘everything will be impacted by climate change’. Nevertheless, the same interviewee provided examples of current projects involving the government where cross-sectoral dialogue had not involved all governmental stakeholders. The completion and implementation of the national climate change policy may help encourage the cross-sectoral dialogue, as ‘the main purpose of the policy is to mainstream climate change in the decision-making process of all sectors’ (government interviewee).

The policy-making mechanisms in Vanuatu do involve participatory processes. One interviewee from the industry highlighted workshops as part of the policy-making process, but then highlighted issues related to the consultation of the industry and the general public prior to the policy development. The interviewee mentioned that short notice is being given (approximately 3 days), and ‘speeches and food seem to be the main focus’ and as ‘the private sector is not paid to be there they feel they are wasting their time’. It is important to ensure that stakeholders are given the opportunity to debate directly on the topic for policy (Bramwell & Sharman, 1999). If very little time is allocated for actual stakeholder debate and discussion and the workshops focus more on information dissemination, then this may well affect future collaborations negatively, and it may raise questions as to why these workshops then are held. ‘Is it government involving the community simply to legitimise its policies?’ (Bramwell & Sharman, 1999, p. 399). After a policy has been implemented, the policy solutions should be evaluated (Dredge & Jenkins, 2007). However, as suggested by an interviewee from the industry, this phase of policy-making is affected as ‘meeting minutes are not followed through’. This lack of stakeholder engagement in the entire policy-making process is supported by another interviewee from the industry groups, who mentioned that ‘there is a lack of transparency’. Ensuring transparency and accountability is one parameter for ensuring good local governance (Beaumont & Dredge, 2010). This highlights a concern that the consultation process seems to be based on process rather than on performance and may have an influence on the effectiveness of achieving the goals set out.

Nevertheless, it could be that apathy and a lack of involvement by industry players contribute to the difficulties in implementation. One example was mentioned by a fourth industry player, who said that ‘only two expatriate operators [were] at the launch of the [SANMA] tourism plan’. The question is whether policy implementation should take place through top-down approaches or bottom-up approaches – a topic which has received much debate in the literature (Dredge & Jenkins, 2007). An interviewee from the industry group believed that the ‘current focus is on disaster risk management, in relation to tsunamis and earthquakes and cyclones and that most [industry players] feel that the impacts of climate change are out of their hands and should be the focus of Government’. This quote suggests the need for a top-down approach, but it is possible that this view is based on a limited knowledge of climate change and climate change adaptation.



This lack of awareness was further backed up by an interviewee from the government, who identified ‘a lack of awareness’ in relation to policies in the following areas: (1) what is out there; (2) what are the impacts of climate change on tourism; (3) what needs to be done; (4) what are tourism ‘tides’; and (5) what are the skills within tourism. It is not surprising to find a limited awareness of climate change adaptation among tourism operators, as awareness on climate change adaptation has been identified as low in many cases (Scott et al., 2008a). Perhaps with improved information dissemination and stakeholder collaboration, a sense of shared ownership can be promoted and make the various stakeholders willing to help government implement policies (Bramwell & Sharman, 1999), thereby taking a bottom-up approach. It is, therefore, strongly suggested that future directions taken by the government should include strategies on how to empower the tourism sector and build community spirit and support for government policies.

Another issue related to the sense of ownership is the involvement of foreign consultancies in the policy-making process. Reliance on external consultants in the policy development process can result in a community losing control over tourism development (Moscardo, 2011). An interviewee from the industry mentioned that ‘they [the Government] often hire consultants in Australia, but the policy says to hire local consultants. This is not enforced either’. The question is whether the local people are involved enough in these types of projects to develop a sense of ownership and support for these policies. It is of key importance to base policies on local knowledge to ensure that they have leverage (Bramwell & Sharman, 1999). Perhaps this lack of local knowledge in policies is why it seems, as suggested by several industry players, that most of the international donor agency-developed policies end up on the shelf and are never implemented. As one interviewee highlighted, ‘it is disheartening to see all the good work end up as white paper’. Consequently, government should enforce the policy of hiring local consultants or at least ensure that policy processes involving foreign consultancies make use of effective participatory processes, including questionnaires and working groups, that allow enough time for debate on appropriate issues related to the policies. This leads us to the policies identified in this study.

### *Inventory of policies that are pertinent to climate change adaptation*

In total, 27 policies were identified as potentially pertinent to climate change adaptation for the tourism sector in Vanuatu. Out of the 27 policies identified, only 4 explicit policies were identified (Table 2), and the remaining 23 policies were implicit policies (Table 3–7).

Table 2. Explicit policies pertinent to climate change adaptation for the tourism sector in Vanuatu.

Policy	Types of adaptations (Scott et al., 2008b)				
	1	2	3	4	5
A Climate Change Policy and Implementation Strategy Discussion Paper for Vanuatu		✓		✓	✓
National Adaptation Programme for Action (NAPA) 2007		✓		✓	✓
Pacific Adaptation to Climate Change (PACC) 2009	✓		✓	✓	✓
Pacific Islands Framework for Action on Climate Change (PIFACC) 2006–2015	✓			✓	✓

Note: 1, technical; 2, business management; 3, behavioural; 4, policy; and 5, research and education.

Table 3. Implicit tourism policies pertinent to climate change adaptation for the tourism sector in Vanuatu.

Policy	Types of adaptations (Scott et al., 2008b)				
	1	2	3	4	5
Vanuatu Tourism Development Master Plan 2004–2010	✓	✓	✓	✓	✓
VTAP 2008	✓	✓		✓	✓
TAFEA Province Tourism Plan 2009–2019	✓		✓	✓	✓
Sanma province Tourism Plan 2009–2019	✓			✓	✓

Note: 1, technical; 2, business management; 3, behavioural; 4, policy; and 5, research and education.

Table 4. Implicit environment and disaster risk reduction policies pertinent to climate change adaptation for the tourism sector in Vanuatu.

Policy	Types of adaptations (Scott et al., 2008b)				
	1	2	3	4	5
Disaster Risk Reduction and Disaster Management National Action Plan 2006–2016	✓	✓		✓	
Wan Smolbag Environment Program 1995				✓	✓
Environmental Management and Conservation Act 2002			✓	✓	
National Biodiversity Conservation Strategy 1999				✓	✓
Registering of the Vatthe Conservation Reserve under the Environmental Management & Conservation Act in 2004				✓	✓
Action Plan for Managing the Environment of the Pacific Islands Region 2005–2009				✓	✓

Note: 1, technical; 2, business management; 3, behavioural; 4, policy; and 5, research and education.

Table 5. Implicit fisheries policies pertinent to climate change adaptation for the tourism sector in Vanuatu.

Policy	Types of adaptations (Scott et al., 2008b)				
	1	2	3	4	5
Fisheries Act No 55 of 2005				✓	
National Marine Aquarium Trade Management Plan 2008			✓	✓	✓
Aquaculture Development Plan 2008–2013				✓	✓
Revised Tuna Management Plan 2008		✓		✓	✓
Ban of the collection and fishing of coconut crabs in the Sanma province 2007–2012				✓	✓

Note: 1, technical; 2, business management; 3, behavioural; 4, policy; and 5, research and education.

Table 6. Implicit infrastructure policies pertinent to climate change adaptation for the tourism sector in Vanuatu.

Policy	Types of adaptations (Scott et al., 2008b)				
	1	2	3	4	5
Vanuatu Land Sector Framework 2009–2018	✓			✓	✓
Millennium Challenge Account Vanuatu 2006–2010	✓			✓	✓
Renewable Energy & Energy Efficiency Partnership (REEEP) – Project 1: 2009–2011				✓	✓
REEEP – Project 2: 2009–2011					✓

Note: 1, technical; 2, business management; 3, behavioural; 4, policy; and 5, research and education.

Table 7. Implicit economic and social development policies pertinent to climate change adaptation for the tourism sector in Vanuatu.

Policy	Types of adaptations (Scott et al., 2008b)				
	1	2	3	4	5
Priorities and Action Agenda 2006–2015	✓	✓		✓	✓
National Investment Policy 2005				✓	
Vanuatu Millennium Development Goals	✓			✓	✓
ADB Country Partnership Strategy 2010–2014	✓			✓	✓

Note: 1, technical; 2, business management; 3, behavioural; 4, policy; and 5, research and education.

From the analysis, it was found that there were no tourism policies that explicitly dealt with climate change adaptation. However, a number of generic climate change policies did address the tourism sector's adaptation to climate change. Furthermore, a number of other sector policies and tourism plans may assist the tourism sector in addressing climate change.

#### *Explicit policies pertinent to climate change adaptation*

Vanuatu ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1993 and the Kyoto Protocol in 2001 (Figure 4). Both these ratifications have helped the nation in putting climate change on the country's agenda. The National Advisory Committee on Climate Change (NACCC) was re-formed in 1997, as a result of the implementation of the Pacific Islands Climate Change Assistance Programme (PICCAP). It was first established in 1989 (Silas-Nimoho & Whyte, 1999). In 1999, the Initial National Communications were submitted to the UNFCCC, and following this, a number of explicit climate change policies have developed in the region and within Vanuatu. It is worth mentioning that the proposed national climate change policy framework highlights some of the critical sectors that are directly impacted by climate change, but neglects to mention the tourism sector.

The four explicit climate change policies identified in Vanuatu include one regional policy and three national policies. The Pacific Islands Framework for Action on Climate Change 2006–2015 provides a guiding model for Vanuatu in acting on climate change,

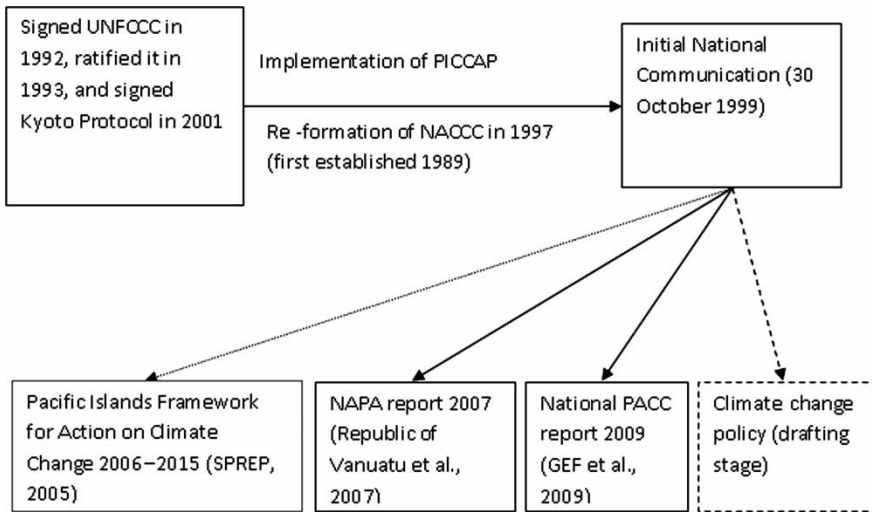


Figure 4. Mapping out of the explicit climate change policies in Vanuatu.

whereas the national policies have identified the courses of actions to be taken. As mentioned by an interviewee from the government pool, the national climate change policy is being drafted and should be completed in 2010. At the time of writing this paper, the national climate change policy had still not been signed off by the relevant minister. Besides the explicit policies, 23 implicit policies have components that will help the tourism sector in Vanuatu address climate change.

#### *Implicit policies pertinent to climate change adaptation*

Tourism policies. In recent years, the Government of Vanuatu has acknowledged the importance of the tourism sector to secure economic growth and has developed a number of policies related to tourism (Table 3). According to an interviewee from the government, 'the national tourism office was first established in the 1980s when it was decided by the national planning office that a sector plan should be written to guide further development of tourism and to further grow this sector'. This policy was brought into life in 1995 when the World Tourism Organisation prepared a tourism development master plan for Vanuatu, which was endorsed by the government (VNSO, 2007). This has since been updated, and the Vanuatu Tourism Development Master Plan 2004–2010 sets out the overall policy for the tourism sector and will be implemented through the Vanuatu Tourism Action Program (VTAP) 2008 and its sub-sector plans (e.g. regional tourism development plans and destination marketing plan).

None of these policies acknowledge climate change or include explicit climate change adaptation measures. However, elements of these plans will help the tourism sector adapt to climate change, as highlighted in Table 3. For example, the VTAP 2008, which is currently in the process of being implemented, involves a range of technical, business management, policy, and research and education adaptation types of measures. One example is the support of the geographical spread of tourism by incorporating provincial tourism products and icons into the VTO marketing, hence diversifying the product offering and enhancing the overall resilience of the tourism sector. In a similar vein, the implementation of an

international aviation strategy is another example of policies ‘implicitly’ contributing to climate change adaptation in the tourism sector.

#### *Environment and disaster risk management policies*

Environment and disaster risk management policies also impact on the tourism sector. Seven implicit policies are identified within the environment and disaster risk management policy areas that are conducive to assisting adaptation to climate change in the tourism sector (Table 4). The *Disaster Risk Reduction and Disaster Management National Action Plan 2006–2016* entails technical, business management, and policy types of adaptations by, for example, facilitating the implementation of early warning systems which can reduce the vulnerability of the tourism sector to climate change-induced risks such as cyclones and storm surges.

There are six implicit policies identified under the environment. One policy is regional, two are national, and the remaining three are provincial/local. As an example, the *Environmental Management and Conservation Act 2002* provided technical, policy, and research and education adaptation types whereby, for example, the establishment of conservation areas protects Vanuatu’s natural resources, which provide future tourism attractions, thus making tourism less vulnerable to climate change-induced ecosystem damage.

#### *Other implicit policies pertinent to climate change adaptation*

Twelve implicit policies did not fit into the three key policy areas identified, but they were pertinent to the Vanuatu tourism sector’s adaptation to climate change. For example, the technical adaptation of improving transportation infrastructure and services under the *Millennium Challenge Account Vanuatu 2006–2010* policy will enhance access to a broader range of tourism attractions with resultant flexibility and lessened vulnerability of the tourism sector. These ‘other’ implicit policies can be divided into three policy areas: fisheries (Table 5), infrastructure (Table 6), and economic and social development (Table 7).

In conclusion, the combination of explicit and implicit policies does facilitate a broad range of climate change adaptation measures within all five adaptation types. However, the majority of policies identified deal with climate change through implicit adaptation processes and mainly through the use of policy and research and education measures.

#### ***Policy gaps: are the identified policies addressing the SIDST characteristics?***

As suggested earlier in this paper, SIDSTs have characteristics that can make them more vulnerable to climate change. The following provides an overview of how the identified mix of explicit (Table 8) and implicit (Table 9) policies addresses the SIDST characteristics that make Vanuatu more vulnerable to climate change.

Overall, the SIDST characteristics that contribute to Vanuatu’s vulnerability are being addressed through the mix of explicit and implicit policies with the two most addressed SIDST characteristics being *limited funds and human resource skills* (24 out of 27 policies) and *limited natural resources* (23 out of 27 policies). The least addressed SIDST characteristics are the *limited size* (2 out of 27 policies) followed by *water* (6 out of 27 policies) and *population growth and density* (6 out of 27 policies). Although it is not always possible for policies to address all of the SIDST characteristics, it is important to acknowledge these characteristics as contributing to vulnerability, address them where appropriate, and build on the strengths and opportunities of the nation.

Table 8. Explicit policies addressing SIDST characteristics.

Policy	Climate change adaptation addressing SIDST characteristics that highlight vulnerability (Sem & Moore, 2009)							
	1	2	3	4	5	6	7	8
A Climate Change Policy and Implementation Strategy Discussion Paper for Vanuatu		✓		✓	✓			✓
NAPA 2007		✓	✓	✓	✓		✓	✓
PACC 2009		✓			✓		✓	✓
PIFACC 2006–2015		✓	✓		✓			✓

Note: 1, limited size; 2, limited natural resources; 3, natural hazards; 4, limited water supply; 5, low economic resilience; 6, population growth and density; 7, infrastructure; and 8, limited funds and human resource skills.

Table 9. Implicit policies addressing SIDST characteristics.

Policy	Climate change adaptation addressing SIDST characteristics that highlight vulnerability (Sem & Moore, 2009)							
	1	2	3	4	5	6	7	8
Priorities and Action Agenda 2006–2015	✓	✓	✓	✓	✓	✓	✓	✓
Disaster Risk Reduction and Disaster Management National Action Plan 2006–2016			✓				✓	✓
Vanuatu Tourism Development Master Plan 2004–2010	✓	✓	✓		✓	✓	✓	✓
VTAP 2008		✓			✓		✓	✓
TAFEA Province Tourism Plan 2009–2019		✓		✓	✓	✓	✓	✓
Sanma Province Tourism Plan 2009–2019		✓					✓	✓
National Investment Policy 2005		✓			✓			✓
Fisheries Act No 55 of 2005		✓						✓
National Marine Aquarium Trade Management Plan 2008		✓						✓
Aquaculture Development Plan 2008–2013		✓						✓
Revised Tuna Management Plan 2008		✓			✓			✓
Ban of the collection and fishing of coconut crabs in the Sanma province 2007–2012		✓						✓
Wan Smolbag Environment Program 1995		✓						✓
Environmental Management and Conservation Act 2002		✓						✓
National Biodiversity Conservation Strategy 1999		✓	✓	✓			✓	✓
Registering of the Vatthe Conservation Reserve under the Environmental Management & Conservation Act in 2004		✓						✓
Vanuatu Land Sector Framework 2009–2018		✓	✓			✓	✓	✓
Vanuatu Millennium Development Goals					✓	✓	✓	✓
Millennium Challenge Account Vanuatu 2006–2010					✓		✓	✓
REEEP – Project 1: 2009–2011		✓						✓
REEEP – Project 2: 2009–2011								✓
ADB Country Partnership Strategy 2010–2014		✓			✓	✓		✓
Action Plan for Managing the Environment of the Pacific Islands Region 2005–2009		✓	✓	✓	✓			✓

Note: 1, limited size; 2, limited natural resources; 3, natural hazards; 4, limited water supply; 5, low economic resilience; 6, population growth and density; 7, infrastructure; and 8, limited funds and human resource skills.

***The conduciveness of the policy environment to climate change adaptation***

The primary aim of this study was to examine the policy environment in Vanuatu for its conduciveness to climate change adaptation. The conduciveness of a policy environment can be assessed based on the level of commitment of key stakeholders to the policy agenda, resource availability, and the presence of an enabling policy mechanism (Wong, Mistilis, & Dwyer, in press).

*Commitment of stakeholders to the policy agenda: a sense of ownership in the policy process?*

Although climate change is considered important in some sections of the government, there is little awareness of its importance in the tourism sector especially 'on the ground'. This is a significant problem as what makes climate change such an important issue to deal with at government level is that it exacerbates current stressors (Gössling & Hall, 2006; Preston et al., 2006) as well as creates new stressors. Consultation processes with local communities and industry players seem to be more process than performance oriented, which again weakens the effectiveness of the enabling policy mechanisms. Not all policies are implemented or enforced due to a lack of financial as well as human resources and skills. This is a real issue and may as a consequence lead Vanuatu to be unprepared to cope with the adverse effects of climate change (Belle & Bramwell, 2005). The national climate policy together with any tourism sector's explicit climate change policy if and once developed and implemented may partly address this gap. The national climate change policy will encourage the whole of government approach required to address the issue of climate change (Dredge & Jenkins, 2007), whereas the tourism sector's explicit policy will build on the opportunity of showing leadership through the development of a coherent policy agenda entailing perspectives of both development and climate change, as identified by Scott et al. (2008a).

In terms of Vanuatu, the commitment by key stakeholders to the policy agenda is in the developing stage; climate change has entered the policy arena, but is not yet a key focus. With the completion and implementation of the national climate change policy, this gap will be bridged by mainstreaming climate change in all sector policies. A vital example of this gap is the lack of explicit policies in the tourism sector.

The implementation part of the policy process is of key importance – it is the stage in which policy is turned into action (Dredge & Jenkins, 2007; Hall, 2009). It is also through this phase that the success of the consensus-building between stakeholders can be proven, as it in some cases, as suggested by Bramwell and Sharman (1999), requires actions rather than aims to convince cautionary or cynical stakeholders to the policy-making process. The following quotes prove that there is some cynicism in the tourism industry in Vanuatu, which may hinder the success of stakeholder collaboration in the policy-making process. An interviewee from the industry group showed the interviewer a piece of paper and said the following while he pointed at the piece of paper, 'a person once told me that if you take a piece of paper and say this is the environment, then climate change is just a tiny little corner of the paper'. Another interviewee from the industry said that there is 'no back-up or funding from the Government to deal with climate change and that it is the rest of the world that will have to pull up the Pacific countries'. Although this is a very cynical view of the situation, there is some truth in the matter as Vanuatu, an LDC, cannot afford to allocate sufficient resources (Republic of Vanuatu et al., 2007; Sem & Moore, 2009) to undertake the many adaptation measures that may be required to make its tourism sector more resilient. This is supported by an interviewee from the government,

who mentioned that there was a real issue in relation to the implementation of plans, as the government official stated ‘will there be enough funding to implement the [SANMA tourism] plan within this timeframe?’.

As identified in a *Pacific 2020* project (Commonwealth of Australia, 2006), implementation serves as a serious constraint in Pacific countries and it ‘is a function of ownership’ (p. 4). Consequently, Vanuatu needs to focus on building a sense of ownership to projects and policies through putting in place realistic reform plans and prioritising these and encouraging governance in a Pacific context (Commonwealth of Australia, 2006).

#### *Resource availability and the cost of adaptation*

Financial resources as well as technical knowledge have been identified as limited in SIDSTs and LDCs (Scott et al., 2008a) and will impact on the adaptive capacity. This also applies to Vanuatu, where resources available for climate change adaptation in tourism are somewhat limited. This can be seen in the example of the reduction of the VTO budget, which has recently been cut by a third from 150 million Vatu (approximately US\$1.6 million) to 100 million Vatu (approximately US\$1 million) (Nadkarni, 2007), thereby reducing the sector’s ability to plan long term and be flexible. On the other hand, Vanuatu received funds from the LDC fund, and a number of aid agencies (e.g. AusAid, Asian Development Bank (ADB), and the Millennium Challenge Account) fund climate change-related projects in Vanuatu as well as in the greater Pacific region. An incorporation of climate change adaptation in all sector policies, such as through the implementation of the national climate change policy, may help bridge this gap.

There will be some costly technical adaptations needed to address the impacts of climate change on the natural resources and ecosystems crucial to tourism. Nevertheless, not all policies have to be costly to implement. Basic community-run or -driven projects and policies can be very effective. Two excellent examples in Vanuatu were provided by interviewees from the NGO group. One interviewee explained about the NGO’s community outreach programmes and how a theatre group would perform when a new committee was set up and consequently provide awareness through their performance. The other interviewee explained how the understanding of the life cycle of a specific species leads to a better caring of the species.

The Government of Vanuatu has also implemented a climate change adaptation initiative, which has proven to be successful. A government interviewee explained ‘a Giant Clams farming project was developed to stop locals from exporting wild clams’. As mentioned by the interviewee, this project not only helps address the issue of a declining population of clams (limited natural resources), but also ‘will provide another option and revenue system for these communities’ including viewing for divers (tourists).

#### *Presence of an enabling policy mechanism*

In summary, there is a presence of an enabling policy mechanism, as discussed earlier in the paper. The presence of an enabling policy mechanism can be seen in terms of the number of explicit and implicit policies identified in this analysis, the presence of consultation processes, and the growing inclusion of climate change in the policy arena. However, in many cases, foreign consultants are hired to develop the plans and strategies, which may prevent a sense of ownership of these policy documents, thereby weakening the successful implementation rate. Tourism stakeholders are involved in the policy process via



workshops, but this consultation process can be significantly improved to make stakeholder collaboration more successful.

The Government of Vanuatu needs to localise the impacts of global climate change (Tang, Brody, Quinn, Chang, & Wei, 2010) and then involve a range of stakeholders, including stakeholders at senior management and stakeholders who are involved with the implementation of policy at the beginning of policy development and all the way through to implementation; use a range of participation techniques (e.g. questionnaires and working groups run by a facilitator that allow for debate and interaction among stakeholders); highlight the perceived benefits of the policy; allow for different styles of dialogue; communicate and acknowledge that agreement may not always be achieved and that there may be systemic limitations; and base policies on local knowledge (Bramwell & Sharman, 1999). Through these actions, a sense of ownership can be developed, which will heighten the implementation rate of policies, ensure stakeholder commitment to these policies throughout the policy process, and more importantly, as a result of this, reduce the vulnerability of the tourism sector to climate change.

## Conclusion

Firstly, the main conclusions from the policy analysis are (1) a number of explicit and implicit policies do address climate change issues that will enable Vanuatu generally and its tourism sector more specifically to adapt to climate change; (2) only one policy is explicitly concerned with both tourism and climate change; and (3) none of the tourism plans identify climate change as a risk and do not set out actions to adapt. The Vanuatu tourism master plan and the current two provincial tourism plans do not consider climate change at all.

Secondly, the implementation of policies is a real issue. Adaptation policies, like all policies, are only effective if implemented and reviewed on a regular basis. Our study highlighted that climate change does not rate highly on the political agenda for government administration and financial resources to implement policies more broadly are strained. This may result in Vanuatu being left unprepared to cope with the effects of climate change and may increase the likelihood of severe consequences occurring.

Further research should be undertaken in identifying the risks of climate change for the tourism sector in Vanuatu. Most importantly, the tourism sector needs to ensure that it is explicitly considered in all climate change adaptation policies and strategies and that all tourism plans have the inclusion of a climate change adaptation section. All sub-sectors of tourism should have a climate change adaptation plan building on the country's strengths and addressing its vulnerabilities. Furthermore, future studies need to look into how the government can develop and provide incentives for sustainable tourism with a specific focus on adaptation to climate change.

## Acknowledgement

This research was funded by an AusAID Australian Development Research Award, ADRA0800029.

## Notes

1. In this paper, the Intergovernmental Panel on Climate Change's definition of climate change is being used. Thus, climate change refers to 'any change in climate over time, whether due to natural variability or as a result of human activity' (IPCC, 2007a, p. 2).

2. IPCC's (2007a) description of likelihood – very high confidence means at least 9 out of 10 chances of being correct.
3. The National Statistics Office undertook a visitor survey in 2004 with 5000 surveys completed. Out of these, 4982 forms were usable for analysis and the report was divided into three areas: visitor profile, travel behaviour, and visitor expenditure (VNSO, 2007).

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