

Harmonising climate change adaptation and mitigation: The case of tourist resorts in Fiji

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Abstract

Tourism in island states is vulnerable to climate change because it may result in detrimental changes in relation to extreme events, sea level rise, transport and communication interruption. This study analyses adaptation to climate change by tourist resorts in Fiji, as well as their potential to reduce climate change through reductions in carbon dioxide emissions. Interviews, site visitations, and an accommodation survey were undertaken. Many operators already prepare for climate-related events and therefore adapt to potential impacts resulting from climate change. Reducing emissions is not important to operators; however, decreasing energy costs for economic reasons is practised. Recommendations for further initiatives are made and synergies between the adaptation and mitigation approaches are explored.

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1. Introduction

Fiji is the largest tourism destination in the South Pacific but international arrivals have fluctuated over the last 5 years because of a series of detrimental events, such as the political coup in Fiji in 2000, the terrorist attack in the United States on 11 September 2001, the Bali attack in 2002, and Severe Acute Respiratory Syndrome outbreaks in Asia in 2003. These events have shown that tourism in Fiji is vulnerable to both internal and external events. Tourism is also vulnerable to natural hazards and disasters, such as earthquakes, tsunamis, floods, droughts, and cyclones. Climate change plays an important role in disaster management, because it is likely to affect Fiji through sea level rise and storm surge, changing temperature and precipitation patterns, and extreme weather events. As in other developing countries, this vulnerability is aggravated by limited institutional capacity, non-availability of technologies, ill-enforced regulatory frameworks, and lack of financing (B. Challenger, Presentation at the

IPCC Outreach Workshop on Mitigation, September 23–24, 2002). Climate change has to be seen in a multi-stress context of wider environmental, social, and political changes and pressures (Wilbanks, 2003).

While the wider climate change debate has until recently mainly focused on mitigation (Burton et al., 2002; Wilbanks, 2003; Nicholls and Lowe, 2004), the sparse research specifically dealing with tourism and climate change has largely concentrated on tourism's vulnerability and adaptation to climate change (e.g., Elsasser and Buerki, 2002; Scott, 2003; Scott et al., 2003). Both the tourism industry and researchers have identified a threat to tourism resulting from climate change, especially in alpine areas, small island states, and developing countries (World Tourism Organisation, 2003). Climate change is also likely to affect global tourist flows as a result of the changing attractiveness of both destinations and countries of origin (Hamilton et al., 2005). Despite an inherent interest in 'protecting' the tourism industry, there is increasing awareness that tourism is an important contributor to climate change through its consumption of fossil fuels and resulting greenhouse gas emissions (Becken, 2002; Gössling, 2002). The wider literature on climate change now

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emphasises that neither adaptation nor mitigation should be implemented independently, but that an integrated framework for sustainable development should be envisaged (IPCC, 2001; Nicholls and Lowe, 2004). In the same way, research on climate change and tourism will benefit from taking into account the multiple interactions between climate, tourism, and the wider environment (Dubois, 2003; Viner and Amelung, 2003).

This study seeks to enhance understanding of climate change issues associated with tourism from both adaptation and mitigation perspectives, and explores synergies between the two responses. A localised approach is taken (as suggested by Wilbanks (2003)), with the research being confined geographically to the main tourist destinations in Fiji (Viti Levu, the main island, and the Mamanuca Islands). Moreover, this study concentrates on the accommodation sector as the core component of the tourism product in Fiji. The paper is based, in part, on a more comprehensive report on climate change and tourism in Fiji (Becken, 2004).

1.1. State of tourism in Fiji

In 2002, about 400,000 tourists visited Fiji with an average length of stay of 8 days. Despite adverse political events nationally and internationally, tourism in Fiji has grown over the last years (Fig. 1) and is forecast to grow at an average rate of 6.2% per year between 2004 and 2014 (Campbell, 2004). In 2002, most tourists came from Australia (31%), New Zealand (17%), the United States (15%) and the United Kingdom (11%). While most visitors come for ‘rest and relaxation’ typically linked to beach environments (Ministry of Tourism, 2003), current marketing campaigns aim to shift the image away from pure beach promotion to a wider experience. Also, there are attempts to attract more tourists from long-haul markets, for example from the USA and Europe, in addition to the traditional markets of Australia and New Zealand (Ayala,

1995; S. Toganivalu, Manager, Fiji Visitors Bureau, pers. comm.).

Tourism is increasingly important to the national and local economies. In 1998, tourism earned F\$568 million in foreign exchange, while sugar only earned F\$244 million (Narayan, 2000). The decline of the sugar industry (Narayan and Prasad, 2003) has resulted in heightened expectations from tourism as the main export industry (Levett and McNally, 2003). In 1999, tourism directly and indirectly contributed 29.5% to GDP and 37.0% to exports (World Travel and Tourism Council, 2001). A major problem of tourism in Fiji, however, is its economic leakage; about 60% of tourists’ expenditure is estimated to leak out of the country (Levett and McNally, 2003).

Several attempts have been made to improve the environmental performance of Fiji’s tourism industry, including projects related to energy efficiency and renewable energy sources, and environmentally friendly resort construction (Aalbersberg et al., 2003). Nevertheless, the overall focus of the Government is on increasing visitor numbers, retaining tourist dollars, and encouraging further development (Narayan and Prasad, 2003). The Fiji Tourism Development Plan 1998–2005 (Ministry of Tourism, 1998) recommended a ‘Step Change’, with a substantial number of new developments, mainly in the already developed areas of the Coral Coast and the Mamanuca Islands. Levett and McNally (2003) assessed the sustainability of this Tourism Development Plan and concluded that it contains some useful suggestions for reducing tourism’s environmental impacts. However, the authors expressed concern that the large scale of the envisaged development could exceed carrying capacities and ‘tip the balance’ towards irreversible effects on the environment. While there exist policy frameworks that regulate tourism development (e.g., Environmental Impact Assessment), few of them are implemented and work in practice.

1.2. Vulnerability of tourism in Fiji to climate change

Several studies on climate change, climate variability and vulnerability, and impact assessments have been undertaken in the South Pacific (e.g., Hay et al., 2003) and in Fiji specifically (Nunn et al., 1994; Feresi et al., 2000; World Bank, 2000). Projected temperature increases are somewhat lower for Fiji than for the global average of 0.1 °C per decade (IPCC, 2001), being in the order of 0.7–0.9 °C per 1.0 °C increase in temperature globally (Feresi et al., 2000; Salinger, 2000). Sea level rise in Fiji may be in the order of 23–43 cm in 2050, and up to 1.03 m in 2100 (World Bank, 2000). Trends in climate change and sea level rise due to global warming have to be seen against other variations caused by existing natural variability, prevailing winds, earth crustal movements, and wave action.

Most of Fiji’s population (about 90%; Feresi et al., 2000) and infrastructure (e.g., towns, airports, resorts) are currently located on coastal and low-lying areas and,

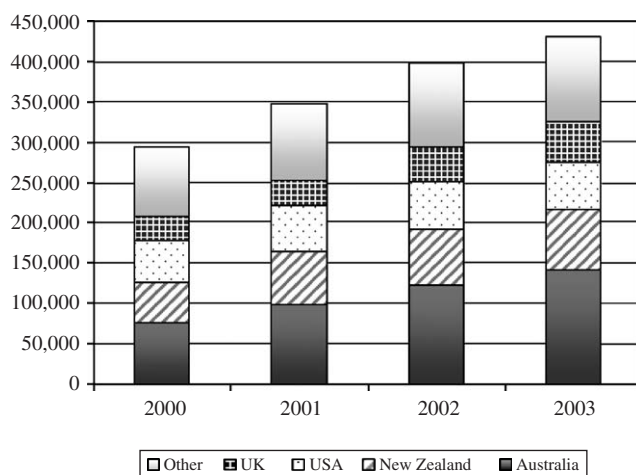


Fig. 1. International visitor arrivals to Fiji between 2000 and 2003.

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