Chapter 9

Hazardous Leisure
Globally, tourism is one of the most dynamic and fastest-growing business sectors, contributing 9 percent to global GDP (WTO, 2011; WTTC, 2012). In 2011, the tourism sector was responsible for 4.6 percent of total global capital investment. The sector creates more jobs than the financial services, communications and mining industries and for every US$1 spent on tourism and travel, US$3.2 is generated in GDP (WTTC, 2012).

In 2012, the tourism industry was expected to grow faster than overall predicted global growth (UNWTO, 2011). Its contribution to global GDP in the same year was estimated to be US$2 trillion, generating more than 100 million jobs (WTTC, 2012). Most of this growth is occurring in China and India, where domestic tourism is expected to generate a sharp upturn in capital investment—contributing to an overall growth of 6.7 percent in Asia (ibid.). This chapter, however, will focus on tourism in Small Island Developing States (SIDS), and how business investment decisions contribute to disaster risks, in turn affecting the economy of these countries.

Many small island developing states (SIDS) are heavily dependent on tourism and a number of different tourism products along the tourism supply chain as the key source of investment (Zhang et al., 2009). Although SIDS may be uncompetitive in other economic sectors, in tourism, many of them excel (WEF, 2011).

Small island states that have been most successful in attracting investment in the tourism sector have also experienced the highest losses relative to GDP and damages to uninsured public and private infrastructure.

Where the ownership of risk is not well defined, costs may be borne by those that usually benefit least. In these settings, tourism can create new risks, but also presents great opportunity for risk management.

The role of social demand for resilient investment is currently not a strong lever in the tourism sector, particularly in the context of demand for beach tourism. Value propositions for small island holiday destinations that meet current demand and yet promote resilience need to be articulated.
In many SIDS, business investment in the tourism sector is driven by attractive tropical beachfront and coastal locations, associated marine leisure opportunities as well as land-based activities, such as golfing. Several SIDS also promote business and conferencing facilities along with attractive beachfronts, targeting large national and international companies and organisations. Because of these comparative advantages, the tourism sector has been a major driving factor for economic growth, particularly between 2005 and 2010, enabling countries such as the Maldives and Cape Verde to graduate from their Least Developed Country (LDC) status (UNWTO, 2012).

In 2007, international tourism receipts accounted for 51 percent of total value of exports of SIDS compared with less than 10 percent in other developing countries (UNDESA, 2010). Figure 9.1 highlights the contribution made by the tourism sector to exports and GDP in 25 SIDS.

Investment in the tourism sector, however, presents SIDS with opportunities as well as challenges. Tourism generates economic growth and employment. But this reliance on a single economic sector implies risks. As Figure 9.2 shows, all but a handful of SIDS (whether they are LDCs or not) have a higher vulnerability to shocks and crises than LDCs in general.

9.2 Beachfront risk

Direct and indirect losses from disasters in SIDS can affect not only the entire tourism industry but national economies as a whole. Tourism investments both exacerbate and suffer significant impacts from weather-related disasters in these countries.

The comparative advantage of SIDS in attracting business investment in the tourism sector is equally one of their greatest risks. For example, in the Caribbean, typical tourism development is located within 800 metres from the high water mark (World Bank, 2000). In the Commonwealth Caribbean more than 65 percent of hotel rooms are in coastal areas—in Barbados, for example, the percentage exceeded 90 percent in 2002 (Jackson, 2002).

By their very nature, these investments—particularly in beach tourism—are highly exposed to hazards such as tropical cyclones, storm surges and tsunamis. Further, coastal tourism is highly exposed and vulnerable to negative impacts from climate change (ECLAC, 2011). This may include infrastructure exposed to sea level rise, beaches that are subject to coastal erosion, diving centres that depend on healthy coral reefs, as well as sedimentation and water pollution.

As highlighted in Chapter 7, many SIDS have exceptionally high levels of disaster risk. Business investment in the SIDS tourism sector, therefore, comes with high levels of disaster risk, which, given the high dependency of local economies on tourism, becomes a shared cost for economies and societies as a whole.
Over the last decade, beach tourism destinations and island reserves in particular have experienced disasters associated with the following hazard events: Indian Ocean tsunami in 2004, Hurricanes Katrina and Wilma in 2005, and the Samoan tsunami and Fiji floods in 2009. Data on the amount of losses to the tourism sector or percentage of tourism operations and outputs exposed to hazards are not readily available. However, the few national or regional-level studies published to date all indicate significant impacts (UNEP, 2008).

In 2004, Hurricane Ivan resulted in estimated direct losses of US$900 million in Grenada—more than twice the country’s GDP. The tourism sector was particularly hard hit. Of the island’s infrastructure, 70 percent was damaged, and demand for services from the tourism sector declined for several years (World Bank, 2004). Apart from hotel and restaurant infrastructure, eco-tourism and agro-tourism components suffered severe damage to their resource base (Ibid.).

Later that year, the Maldives suffered direct losses from the Indian Ocean tsunami amounting to total estimated damages of US$470 million, or close to 62 percent of GDP. Of this amount, about US$100 million were losses in the tourism sector (World Bank et al., 2005). Of these losses, approximately one-half were insured. Tourism also suffered the largest indirect losses, together with the fisheries sector. With a sharp drop in tourist arrival numbers, tourism suffered the highest negative macro-economic impact (Ibid.).

In 2009, another tsunami caused total disaster losses of US$124 million in Samoa, the equivalent of more than 22 percent of GDP (Government of Samoa, 2009). Losses in the tourism industry accounted for almost 15 percent of direct and 56 percent of indirect losses. With tourism receipts accounting for 65 percent of all exports (in 2009), Samoa’s efforts to recover from the global financial crisis at the time were further challenged (Ibid.).

Disasters may also cause interruptions to tourist sector supply chains, as flights are cancelled and suppliers affected. Even the warning of an impending cyclone may cause cancellations and hence indirect losses. The structure of these supply chains also makes them highly susceptible to interruptions that affect airports and air traffic in the principal markets for tourism services, such as the United States of America. Storms and extreme weather that close major airport hubs, even for a few days, can lead to cancellations in tourism destinations on the other side of the globe (Hall, 2010).

Business may also be affected for many years after a disaster given that it depends on perceptions of destination safety and security and on the confidence tourists place in industry players (Mahon et al., 2012; Forster et al., 2012; Méheux and Parker, 2006). After disasters, however, tourism operators normally attempt to ensure a speedy recovery of business, playing down underlying risks, so that potential tourists see the disaster as a brief business interruption rather than a manifestation of these risks. In some cases, such as the Maldives, concerns about negative tourist perceptions have led to the withholding of disaster-related information by industry stakeholders (Becken et al., 2011).

Owing to lack of information dissemination on risks, the wider impacts of disasters on the sector have not necessarily resulted in reduced business for tourism operators. For example, in Grenada, by December 2005, just over a year after Hurricane Ivan, the tourism sector had almost completely recovered, with 96 percent of hotel rooms reopened (UNDESA, 2010).
Box 9.1 Losing out on post-disaster recovery: micro, small and medium enterprises in Arugam Bay, Sri Lanka

The local economy of Arugam Bay in Sri Lanka, dependent to a large extent on tourism and fishing, was devastated by the 2004 Indian Ocean tsunami that wreaked havoc on the coast. The particular impact on micro and small and medium enterprises (SMEs) and those that worked in these was quickly recognised; special initiatives were designed to help those affected to recover quickly. However, interest to also boost the more formal, commercial tourism sector during reconstruction led to much of the government’s support for the sector going into large investments geared towards marketing the country’s beaches as an up-market, boutique tourism destination. As a result, small entrepreneurs and businesses as well as fishing communities were insufficiently involved in the recovery processes and their livelihood recovery was severely hampered.

(Source: Robinson and Jarvey, 2008)

Box 9.2 A blueprint of investment-driven risk accumulation in the tourism sector – the case of Denarau, Fiji

The 2009 floods that affected Fiji resulted in high economic costs that were borne almost exclusively by small businesses and households. About US$143 million were lost by small businesses and another US$7 million by households. In March 2012, more floods led to more devastation and only two months after the floods, the Nadi Chamber of Commerce reported that 46 small businesses (one-fifth of all small and medium businesses registered with the Chamber) had to close down because of damage to buildings or destruction of stock; only a handful eventually reopened.

Tourism development in Denarau has resulted in Nadi attracting more investments, people and businesses, which meant an increase in exposure of assets. The Pacific Catastrophe Risk and Financing Initiative (PCRAFI) surveyed the Nadi area, noting that financial exposure of physical infrastructure in the area could be estimated at US$2.3 billion. The physical landscape of the island has changed dramatically over time, creating new risks and exacerbating existing exposure (Figure 9.3).

Figure 9.3 Denarau before and after tourism development

(Source: Bernard and Cook, 2012)
9.3 Who pays the costs?

As tourism investment attracts further business investments, generates jobs and with it results in the build-up of housing development and road infrastructure, the ownership of risk is usually not well defined. As a result, risks from new investment become shared costs borne often by those who benefit least from the return on this investment.

Losses in the tourism sector in SIDS can rapidly translate into impacts on employment and disproportionately affect small and medium enterprises (ECLAC, 2003). For example, after the Indian Ocean

Box 9.3 Tourism investment, coastal erosion and rapidly increasing coastal disaster risk in Southern Viet Nam

Mui Ne is located east of Phan Thiet, the capital of Binh Thuan province in southeast Viet Nam. Increased investment in tourism infrastructure on Mui Ne’s beachfront, including construction of a large jetty, seems to have resulted in coastal erosion of Phan Thiet shores with resulting increased storm surge and flood risk. Obstruction of shoreline sediment transport by the jetty may be the main reason. The first photograph of Figure 9.4 shows sandy beaches in front of two hotel developments (depicted here as Hotel West and Hotel East) as well as sand accumulation at a jetty west of the hotels towards Phan Thiet.

To retain sand at the hotel beach, Hotel East invested in the construction of a large jetty that was successful in protecting erosion and even increasing the beach area in front of the hotel. However, the lack of sediment transportation from east to west, following the construction of the jetty, resulted in loss of beach area for Hotel West and coastal erosion further along the coast to Phan Thiet (Figure 9.4, large photograph), leaving those areas more vulnerable to storm surges and floods.

Figure 9.4 Relationship between investment and erosion in coastal southern Viet Nam

(Source of data and figures: Takagi, 2012)
tsunami in 2004, many local economies based on tourism and fishing were severely damaged. Yet, in several cases, reconstruction and recovery efforts focused on large-scale investments that bypassed local businesses to accelerate overall tourism revenue (Box 9.1).

SIDS competing to attract investment in the tourism sector are, implicitly or explicitly, accepting ownership over part of the disaster risk generated by business investments in hotels and resorts. Countries that have been most successful in attracting investment in the tourism sector and have consequently increased their hazard exposure have also experienced the highest losses relative to GDP and damages to uninsured public and private infrastructure (Clayton, 2003).

Investments in tourism infrastructure also attract associated investment (housing for employees; road, water and electricity infrastructure; small businesses) to hazard-exposed areas. Risks to these assets are often not borne by the industry but transferred to households, small entrepreneurs or the public sector—as in the aftermath of major floods in Fiji in 2009 and 2011 (Box 9.2).

Investments in the tourism sector are often accompanied by associated urban and suburban real estate development and land-use change, which can also lead to shared costs and transfer of risk over time and space. For example, although not a part of SIDS, the case of Mui Ne, near Phan Thiet in Viet Nam, highlights the direct causal relationship that tourism investment has in one location and how that can increase disaster risk in another location (Box 9.3).

### 9.4 Incentives and disincentives for risk-neutral investment in the tourism sector

Incentive structures that address the need for risk-sensitive investment in the tourism industry need to be developed significantly.

Despite recurrent disaster losses in SIDS, there is little disincentive to continued and increased business investment in hazard-prone beachfront locations. Between 2004 and 2007, there were sequential major disasters affecting SIDS as well as a rapid growth in their tourism sector (WTTC, 2012).

Because beach or waterfront locations represent more profitable business investments, this drives the concentration of investment into highly hazard-exposed areas. High profitability and short turnover to recover capital investments may mean that investors over discount the risk posed by intensive events with long return periods. And for SIDS governments, tourism is one of the few sectors where they are competitive.

As with other business sectors, it is unlikely that tourism investments in hazard-exposed locations reflect irrational behaviour by either businesses or governments, but rather a calculated trade-off between returns on and risk to capital. The typical tourism developer on Grenada’s main tourism belt of Grand Anse, for example, will calculate the expected economic return associated with a hazard-prone, seafront location and choose this location over one that is located inland and away from the coast and which would produce lower returns (Mahon, 2007). Disaster risk is closely related to setback lines (the distance of tourism infrastructure from the shoreline). In the case of SIDS, appropriate setback lines may be unfeasible if the concerned islands are too small, as with the Maldives (Mahon et al., 2012).

However, multiple layers of investment, decision-making and ownership structures in the industry itself mean that responsibility and accountability
for disaster risk is often diffuse. For example, as in the case of one large international hotel chain, separate investors or investment funds own up to 80 percent of its global hotel business (Honey and Krantz, 2007). In such cases, the premises of resorts are usually operated by another set of investors, including local investors (ibid.). Thus, the risk for global chains, already spread across numerous operations across regions, is further reduced and instead transferred to local investors (Mahon et al., 2012). Even a major disaster in one region would affect only a minor percentage of businesses’ total global operations.

From a government perspective, the predominance of the sector in SIDS economies also implies high inter-country competition to attract investment. This in turn can potentially weaken the role of government regulation to reduce disaster risk, including through land-use planning.

For some small islands that turn down tourism investment, owing to disaster risk or environmental concerns, few other comparative advantages to attract alternative investment in other sectors remain. In contrast, large tourism investors can easily reorient their investments to other islands.

As such, stringent regulations to reduce disaster risk—for example, establishing non-building zones on coastlines—end up curbing total tourism investment and revenue and are difficult to justify or sustain from an economic or political perspective.

The tourism industry, however, is also a frequent recipient of investments made by international development and aid institutions. For example, about US$10 billion were provided in 2005 by 12 international donor agencies to fund 370 individual tourism-related projects (Honey and Krantz, 2007). In addition, tourism and related infrastructure investments from the United States of America and Europe into the Caribbean, in particular, is substantial (Lewsey et al., 2004). Although more could be done to proactively increase the disaster resilience of these investments, good examples exist, such as the Inter-American Development Bank’s Tourism Sustainability Scorecard.

In addition, much of the produced capital in the sector was built in the 1960s and 1970s—a time of relatively weaker planning and regulation and low environmental and risk awareness. During this period, many hotels were developed extremely close to the high water mark (Honey and Krantz, 2012; Mahon, 2007; Mahon et al., 2012). Many coastal tourism belts throughout the Caribbean have developed seaward of the coastal road owing to little recognition of the impact that future sea level rise many have on properties (Mahon et al., 2012).

The imperative to attract investment in the tourism sector is not generally matched by corresponding efforts to manage and reduce resulting disaster risks (Mycoo, 2006). The lack of coordination among the different departments concerned with attracting tourism investment, on the one hand, and with managing disaster risk, on the other hand, further leads to serious policy distortions and conflicting policy objectives and instruments.

The availability and pricing of insurance has yet to act as a disincentive to investment in hazard-exposed locations. Tourism investment represents a growing source of exposure for the insurance industry. Yet, there are only a limited number of assessments available of potential insured losses and the associated implications for insurance premiums and insurability in high-risk regions (UNWTO, 2012).

Although increasing losses could make insurance unaffordable, or unavailable, in the future—particularly for smaller tourism businesses—there is little evidence that the tourism sector has begun to systematically integrate disaster risk considerations into investment and operational plans (UNWTO, 2012).

Good examples do exist, however, as with Fiji,
where the banking and insurance sectors work together to protect their investment in tourism assets (Mahon et al., 2012). A new alliance between the Insurance Council of Fiji and the Fiji Institute of Engineers has resulted in a certification programme overseen by a vetted panel of engineers. To acquire insurance and access bank loans, builders are required to go through this certification programme (Ibid.).

9.5 **The double-edged sword of social demand**

**Client demand in the tourism sector continuously undermines efforts to create incentives for more risk-sensitive investment.** New and unique selling points for holiday destinations that meet the current demand and yet promote resilience should be identified.

Up to 2,700 tourists may have died in coastal resorts in Thailand in the December 2004 tsunami (Rosa, 2012). However, this mass mortality did not diminish the enthusiasm of tourists for tsunami-prone coastal areas, in Thailand or elsewhere.

Social demand, expressed through market demand, plays an important role when changing investment behaviour in other industries. In the tourism sector, however, the demand itself is driving the risk with limited incentives to proactively reduce it. In fact, an asymmetry exists in the valuation of risk by potential tourists: destinations perceived as unsafe benefit from efforts that counter this perception, whereas places that are already perceived as relatively safe do not increase arrivals by specifically promoting this aspect (Sirakaya et al., 1997). This means that to a certain extent, although destinations may be punished for being perceived as unsafe, there is no reward for being perceived as safe (Mahon et al., 2012).

Tourists prefer proximity to the beach, which poses a challenge to coastal zoning for safe tourism developments. A survey of 367 international visitors to the island of Tobago revealed that about 43 percent thought that it is moderately to extremely important that their hotels have disaster plans; a similar percentage found it moderately to extremely important to receive guarantees of personal safety from disasters; whereas about 40 percent of tourists thought it moderately to extremely important to receive information about disaster events at their hotel. However, more than 82 percent thought that it is moderately to extremely important that their hotel be located close to the beach (Mahon et al., 2012).

As a consequence, the tourism sector can actively distort communication of risk information. Examples from the Maldives and Thailand specifically show that the tourism industry can be reluctant to share risk information out of concern that tourists will perceive them as lacking destination safety (Becken et al., 2011; Rittichainuwat, 2012; Mahon et al., 2012). At the same time, although tourists may place responsibility for disaster risk management on resort and facility managers, the industry assumes that responsibility lies with local and national governments (Drabek, 2000), who may not have fully assessed the risks. In Florida, for example, only about one-half of tourism businesses surveyed in 2011 had either written procedures for disaster events or evacuation plans in place (Pennington-Gray et al., 2011). Even major hotel chains do not visibly take disaster risk into account (Bouvier and Kold, 2011).

Yet, there are signs that in transparently managing disaster risks in the tourism sector, both businesses making investments and SIDS striving to attract those investments increase their competitiveness. Several countries that have begun to spearhead this challenge are investing in measures that move significantly beyond ‘business as usual’ response preparedness to potentially effective risk management and reduction (Wright, 2013). Varied mea-
ures have included developing new cyclone building standards (Cook Islands); coastal land-use and zoning plans that are considerate of projected tsunami and storm surge levels (Fiji); and setting back new infrastructure developments according to storm surge inundation lines for events with a 100 years return period (Anguilla).

Although resort tourism features predominantly in beach tourism in several SIDS, such as Fiji (Scheyvens and Russell, 2012), eco-tourism is now the fastest-growing segment within the global tourism industry. Investments in resilient communities, environmental protection and local culture are already on the agenda of large hotel chains, airlines and tour operators (UNWTO, 2011).

Certification programmes and voluntary rating systems are emerging as popular tools. They are increasingly being accepted by clients and supported by governments that seek to promote the role of private enterprises in disaster risk management (Raisch, 2007; Raisch et al., 2007). One such example is Green Globe, the global travel and tourism industries’ certification programme for sustainable tourism. Green Globe Members save energy and water resources, reduce operational costs, and thus positively contribute to local communities and their environment and meet the high expectations of green leisure and business travellers.

During interviews with small tour operators in Tonga, the main potential incentive for considering disaster risk was a quality certification programme that incorporated disaster risk reduction (Mahon et al., 2012).

By integrating risk-neutral behaviour into the agenda of tourism destinations and operators, the sustainability of both SIDS and the tourism investments that they attract could increase. Disaster risk reduction would present a triple win situation for investors in the industry, SIDS governments and communities in tourism destinations.

---

**Notes**

i Data on real growth in the sector were not available for 2012 at the time of writing.

ii To be categorised as a Least Developed Country by the Economic and Social Council of the United Nations, a country must satisfy three criteria: low gross national income (under US$750 based on a three-year average estimate); low human resources (based on indicators of nutrition, health, education); and high economic vulnerability (based on a composite Economic Vulnerability Index). For more information, see: www.un.org/special-rep/ohrlls/ldc.

iii Vulnerability here is defined based on United Nations Environment Programme/SOPAC methodology (UNDESA, 2010) and takes into account characteristics such as size, remoteness, dependence on external demand and supply, extent of resource base, and exposure to global environmental challenges.


v All these measures are described by countries in their National HFA progress reviews, 2011–2013 available on http://www.preventionweb.net/english/hyogo/progress/reports/?pid:222.