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# DEVELOPING STRATEGIES TO STRENGTHEN THE RESILIENCE OF HOTELS TO DISASTERS



## A SCOPING STUDY TO GUIDE THE DEVELOPMENT OF THE HOTEL RESILIENT INITIATIVE

## ACKNOWLEDGMENTS

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This research was conducted on behalf of the United Nations Office for Disaster Risk Reduction Asia and Pacific (UNISDR) and the Federal Republic of Germany within the framework of the Global Initiative on Disaster Risk Management (GIDRM).

# Glossary

<b>Accreditation:</b>	The formal recognition by an independent body, generally known as an accreditation body that a certification body operates according to international standards (ISO 2015).
<b>Certification:</b>	The provision by an independent body of written assurance (a certificate) that the product, service or system in question meets specific requirements (ISO 2015).
<b>Disaster Risk Management:</b>	The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disasters (UNISDR 2009).
<b>Disaster Risk Reduction:</b>	The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNISDR 2009).
<b>Early Warning System:</b>	The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss (UNISDR 2009).
<b>Exposure:</b>	People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses (UNISDR 2009).
<b>Hazard:</b>	A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (UNISDR 2009).
<b>Resilience:</b>	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions (UNISDR 2009).
<b>Response:</b>	The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected (UNISDR 2009).
<b>Risk:</b>	The combination of the probability of an event and its negative consequences (UNISDR 2009).
<b>Risk Assessment:</b>	A methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend (UNISDR 2009).
<b>Risk Management:</b>	The systematic approach and practice of managing uncertainty to minimize potential harm and loss (UNISDR 2009).
<b>Stakeholders:</b>	Those people and organizations who may affect, be affected by or perceive themselves to be affected by a decision, activity or risk (UNISDR 2009).
<b>Vulnerability:</b>	The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard (UNISDR 2009).

# Acronyms

<b>APEC:</b>	Asia-Pacific Economic Cooperation
<b>ASEAN:</b>	Association of South East Asian Nations
<b>ATAA:</b>	Australian Tourism Accreditation Authority
<b>DRM:</b>	Disaster Risk Management
<b>DRR:</b>	Disaster Risk Reduction
<b>FAO:</b>	Food and Agriculture Organization of the United Nations
<b>FDA:</b>	American Food and Drug Administration
<b>GAR:</b>	Global Assessment Report
<b>GIDRM:</b>	Global Initiative on Disaster Risk Management
<b>GIZ:</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
<b>HACCP:</b>	Hazard Analysis and Critical Control Points
<b>HFA:</b>	Hyogo Framework for Action
<b>ICRT:</b>	International Centre for Responsible Tourism
<b>ISO:</b>	International Organization for Standardization
<b>PATA:</b>	Pacific Asia Travel Association
<b>SIDS:</b>	Small Island Developing States
<b>STCRC:</b>	Australian Sustainable Tourism Cooperative Research Centre
<b>UNDP:</b>	United Nations Development Programme
<b>UNEP:</b>	United Nations Environment Programme
<b>UNISDR:</b>	United Nations Office for Disaster Risk Reduction
<b>UNWTO:</b>	United Nations World Tourism Organization
<b>USAID:</b>	United States Agency for International Development
<b>WHO:</b>	World Health Organization

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# Executive summary

*Tourism is one of the most economically important sets of industries worldwide, yet the industry is also one of the most highly exposed to disasters due to its reliance on interrelated industries and location in many hazard prone regions.*

*The Hotel Resilient Initiative aims to develop internationally recognized standards for hotels and resorts that will assist them in reducing business risk and the risk of tourism destinations to natural and technological hazards, while demonstrating the level of preparedness and safety of their premises to potential clients, insurers and financiers.*

*To better understand the current capacities and needs of the hotel industry in disaster resilience, this study aims to analyze the business context and its needs for specific disaster risk management standards, and make recommendations on how those standards could be most effective in reducing disaster risks.*

*This study conducted 17 semi-structured interviews with representatives from hotels, government, insurance companies and hotel associations. Interviewees all had tourism links and expertise relating to destinations including Bohol and Cebu in the Philippines; Lombok in Indonesia; Phuket in Thailand; and the Maldives.*

*Overall, the research aligns with the literature available on the subject. It confirmed that there is a need for standardized disaster risk management procedures and processes, especially in independent hotels, to promote best practices and emphasize more on disaster risk reduction rather than disaster response.*

*The interviews also found that there is a range of drivers to support the Hotel Resilient Initiative. Interviewees agreed that conference and corporate retreat organizers, tour operators and travel agents from Europe are requesting risk management information and audit hotel risk management. This suggests that if Hotel Resilient can work towards developing recognized standards that meet the needs of these purchasers, it could create a competitive advantage. Furthermore, it was mentioned that some insurers reduce premiums for hotels that demonstrate good risk management practices, but this may be limited to larger hotel chains with a number of properties and greater negotiation power.*

*This study also found examples of government agencies actively supporting improved risk management practices among hotels through the development of minimum and regulated standards. Interviewees across all categories noted the important role played by these government agencies and suggested they should be included in the local implementation of the Initiative. The literature and interviewees agree that the Hotel Resilient Initiative should consider complementing standards with activities that address common risks to the tourism industry. For example, developing early warning systems in touristic areas and strengthening key infrastructure. It was also suggested that training and awareness-raising activities would be important to operationalize the Initiative. Additionally, its framework should be flexible enough to adapt to the regional needs of each destination, such as local legislation and hotel-specific constraints.*

*The involvement of industry “leaders” was also suggested to be an important part of the Initiative - both for early adoption and stronger support in the region. Already, a number of industry leaders have indicated their interest to contribute to the development of such standards and work with other hotels in their destination to build capacity and promote adoption of the standards.*

*In the future, it appears that there is a market for a certification scheme. However, the development and industrywide acceptance of well-recognized standards would be an important stepping-stone prior to the complex and costly process of developing a certification scheme.*

*If certification is pursued, it should take every precaution to ensure the integrity of this Initiative to build trust among hotels and customers. This can be achieved by using a third-party certification system, which includes independent auditing of the certifying organizations and use of European or Australian agencies that are perceived as more reliable.*

# Introduction

To promote improved disaster and climate risk management and strengthen resilience in the tourism sector, the United Nations Office for Disaster Risk Reduction Asia and Pacific (UNISDR), the Pacific Asia Travel Association (PATA), and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH within the framework of the Global Initiative on Disaster Risk Management (GIDRM), cooperate in an Initiative called 'Hotel Resilient'.

The Hotel Resilient Initiative aims to develop internationally recognized standards for hotels and resorts that will assist them in reducing business risk and the risk of tourists to natural and technological hazards, while demonstrating the level of preparedness and safety of their premises to its clients, wholesalers, insurers and financiers. In the longer term, the Initiative will consider offering hotels the option to become certified when implementing the standards.

The Initiative builds on strong partnerships with industry associations, government representatives from ministries in charge of tourism and disaster risk management, private sector (e.g. hotels, resorts and tour operators) and civil society. The Initiative is currently in the development phase, and this research report intends to provide insights to better understand how it can be best structured to reduce disaster risks and optimize the adoption of standards.

The research presented in this report aims to understand if there is business interest and need for disaster risk management standards and if so, how they could be best designed to be most effective in reducing disaster risks. The interviewees included representatives from hotels, hotel and tourism associations, tour operators, government agencies, and insurance companies with experience in various tourism destinations that are exposed to disaster risks. This comprises Bohol and Cebu in the Philippines; Lombok in Indonesia; Phuket in Thailand; and the Maldives.

# Literature review

The following literature review aims to inform and guide the scoping study for the Hotel Resilient Initiative. It focuses on five key areas.

- 1. Disaster risk profiles of the selected destinations;**
- 2. Tourism and disasters, to explore the factors that makes tourism vulnerable to disasters and how hotels manage these risks;**
- 3. Tourist perceptions of risk and how this influences hotel selection;**
- 4. Drivers and barriers to the Hotel Resilient Initiative, which presents the challenges and opportunities that need to be addressed;**
- 5. Standards and certification and how these systems work, especially in the hotel industry;**
- 6. Disaster risk management tools and frameworks available that may inform the design of the Hotel Resilient Initiative.**

# Risk profiles

The Hotel Resilient Initiative intends to pilot the risk management standards in selected destinations with high-risk profiles, in which tourism plays a major role. Destinations under consideration include Bohol and Cebu in the Philippines; Lombok, Indonesia; Phuket, Thailand; and the Maldives. This section presents information about the natural hazards these locations are exposed to.

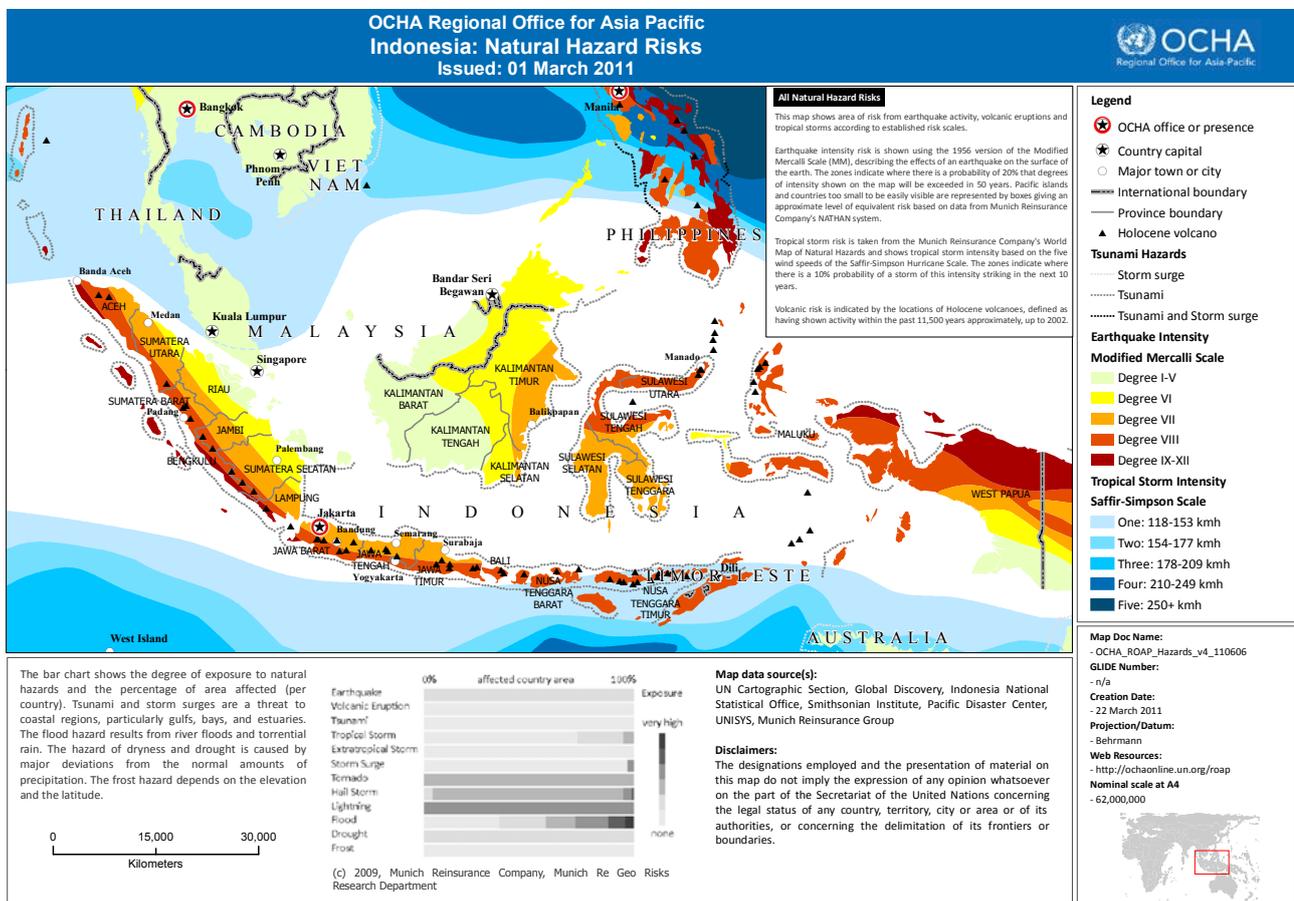
## Lombok, Indonesia

Indonesia is the world's largest archipelago with more than 17,000 islands. With 240 million inhabitants, it is the fourth most populous country in the world. Indonesia is also one of the most disaster prone countries. It is at risk from many natural hazards such as earthquakes, tsunamis, floods, volcanic eruptions, landslides, as well as climate change related hazards including sea level rise, change of sea surface temperature and water acidity, increased storm frequency and intensity and droughts. Issues such as rapid urbanization and environmental degradation have resulted in an increased exposure to hazards, especially in coastal areas (Sunoko 2011). Figure 1 depicts the risk of hazards including hurricane, storm surge, tsunami and earthquake risks in Indonesia.

Lombok is an island in West Nusa Tenggara province. It is an increasingly popular alternative tourism destination to Bali due to its natural terrain, culture and beaches as well as Gunung Rinjani, the second tallest active volcano in Indonesia, which last erupted in May 2010. During the last decades the economy of Lombok has become highly dependent on the tourism industry. Many of Lombok's major developments, especially those related to tourism but also the urban sprawl of the island's capital Mataram, are located directly on the shorelines. They are facing the Indian Ocean in the south and the Bali Sea in the north (Mueck 2013).

Geologists and tsunami scientists consider Lombok as one of the highest risk areas for tsunamis in Indonesia. This is mainly due to the major tectonic collision zone situated a couple hundred kilometers south of Lombok, which present an important risk for tsunami-genic earthquakes. Lombok is also prone to tsunamis from the back-arc fault, facing the northern part of Lombok. This type of fault has a high potential to generate earthquakes and subsequent tsunamis in the direct vicinity of the coastal areas of Lombok (Mueck 2013). Activity of the back arc fault was seen in June 2013, when North Lombok was hit by an earthquake at 5.4 Richter, 10 km deep and located 14 km from northwest of West Lombok. 1,700 houses were heavily damaged, as many were not earthquake resistant.

**FIGURE 1: HURRICANE, TSUNAMI, STORM SURGE AND EARTHQUAKE RISK IN INDONESIA**  
(OCHA 2011)



Other hazards in Lombok include floods, landslides, droughts, storm surges and hurricanes (UNISDR 2015). It is suspected that the increasing intensity of recent hydro-metrological hazards is a result of climate change and by 2030 Lombok may lose up to 1,500 square meters of its coastal area due to sea level rise (WWF 2009). In 2006, intense storms contributed to heavy inundation, which caused flash floods on the island and reportedly affected most of its eastern part, displacing thousands of people.

The government has been active in reducing disaster risks and the North Lombok District in Indonesia has joined the UNISDR “My City is Resilient” Campaign. Further information on their progress is presented in the local progress reports of North Lombok District, West Nusa Tenggara Province on the implementation of the HFA and 10 Essentials for Making Cities Resilient (2013-2014) (UNISDR 2015).

## Cebu and Bohol, The Philippines

The Philippines consists of more than 7,100 islands across 300,000 square kilometers. The country is at the junction of several tectonic plate boundaries, as well as being in a vast expanse of warm water on the western rim of the Pacific Ocean. This makes the country exposed to a number of deadly hazards (figure 2) and one of the most disaster-prone countries in the world (IFRC 2012). Tropical cyclones and floods are the most frequent hazards, but the country also faces severe droughts, volcanic eruptions, earthquakes, tsunamis and landslides (Adaptation Partnership 2011).

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The Central Visayas region includes Bohol and Cebu. Both locations have a fast growing tourism industry. Cebu is particularly popular and has become the tourist gateway to Central and Southern Philippines. The weather in the Central Visayas region is dry and sunny most of the year and generally experiences less pronounced seasons compared to other parts of the Philippines.

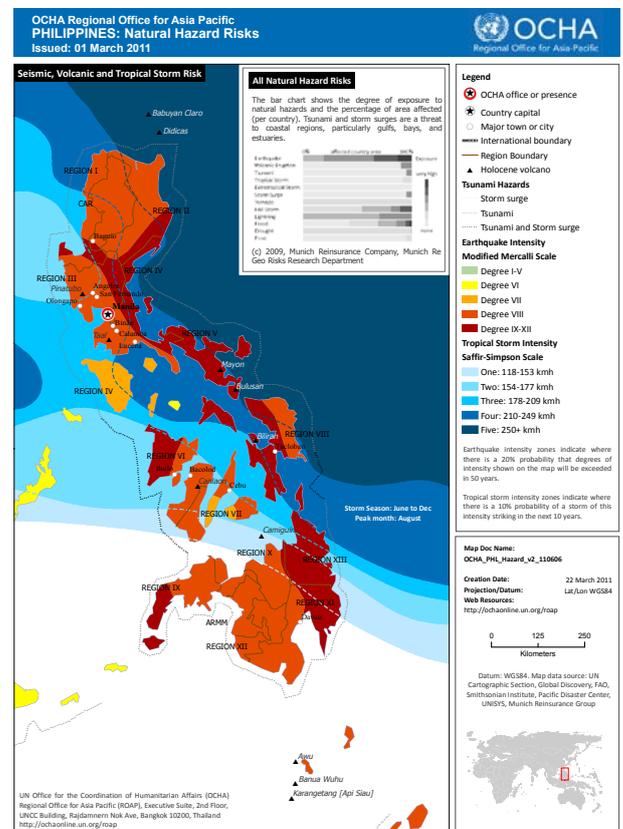
Both Cebu and Bohol are exposed to earthquakes, flash floods, cyclones, landslides and storm surges. North Bohol and Central Eastern Cebu are both exposed to storm surge and tsunamis, while northern Cebu is an area with relatively high exposure to cyclones, which are becoming more intense and frequent (Munich Re 2014). Bohol is more exposed to geological hazards like earthquakes causing intense ground shaking, liquefaction, landslides and tsunamis. This is due to the presence of the East Bohol Fault and another fault located in the Bohol Sea going to Mindanao Sea facing the southern part of Bohol.

The Philippines has experienced some of the most deadly disaster events in recent years. In November 2013, typhoon Haiyan (locally known as Yolanda), one of the strongest typhoons ever recorded worldwide, hit the Philippines. In spite of the typhoon's extreme wind speeds, most of the destruction was caused by the estimated six-meter storm surge, which hit the eastern Visayas and extended one-kilometer inland. Typhoon Haiyan killed over 6,300 people and left more than 4 million homeless (Munich Re 2014). Although the island of Cebu was not as badly damaged as Leyte and its capital, Tacloban, it was especially affected in the north where many buildings were damaged.

One month prior to typhoon Haiyan, on October 15, 2013, Bohol experienced the deadliest earthquake in the Philippines in 23 years. The earthquake affected the entire central Visayas region. It lasted 34 seconds and had a magnitude of 7.2. 195 people died, 651 were injured, and more than 53,000 houses were damaged or destroyed along with infrastructure and some prominent heritage buildings, especially in Cebu (OCHA 2013).

Following the earthquake in 2013, the Provincial Government of Bohol released the Provincial Disaster Risk Reduction Management Plan (2014-2016). This strategy outlines disaster risk reduction for the region, which focuses on strict implementation of existing laws and ordinance and other related issuances; reducing vulnerability and exposure of communities to all hazards; enhancing capacities of communities and disaster risk reduction councils to reduce their own risks and cope with the impacts of all hazards; increasing disaster risk consciousness and responsibilities of communities and establishing and; institutionalizing a Provincial Disaster Risk Reduction Management-Climate Change Adaptation Governance Center (Provincial Government of Bohol 2014).

The Bohol Tourism Recovery Plan was also developed for the tourism industry in response to the earthquake. A collaborative project of the Department of Tourism, the United Nations World Tourism Organization (UNWTO), the United States Agency for International Development (USAID) and PATA, developed strategies to market the province, as well as the development of new tourism products



**FIGURE 2: NATURAL HAZARD RISKS, THE PHILIPPINES**  
(OCHA 2007)

that will strengthen Bohol's position as an eco-cultural destination. Bohol also has a Tourism Code enacted through Provincial Ordinance No. 2009-013. The Code governs and regulates tourism development and promotes programs including the accreditation and supervision of the operations of tourism-related establishments and services in the province. Under the ordinance, tourism is acknowledged as the main economic driver in the province that can provide more jobs and increase the financial resources of the provincial government. Cebu and its provinces have also been active in reducing disaster risks. For example, San Francisco in northern Cebu is a role model city in the UNISDR "My City is Resilient Campaign" (UNISDR 2015).

## The Maldives

The Maldives is an archipelago of 1,190 islands, dispersed over 10,000 square kilometers. With three quarters of the land area of the Maldives laying less than a meter above sea level, it is one of the lowest lying countries in the world (Waheed and Shakoor 2014; UNDP 2007).

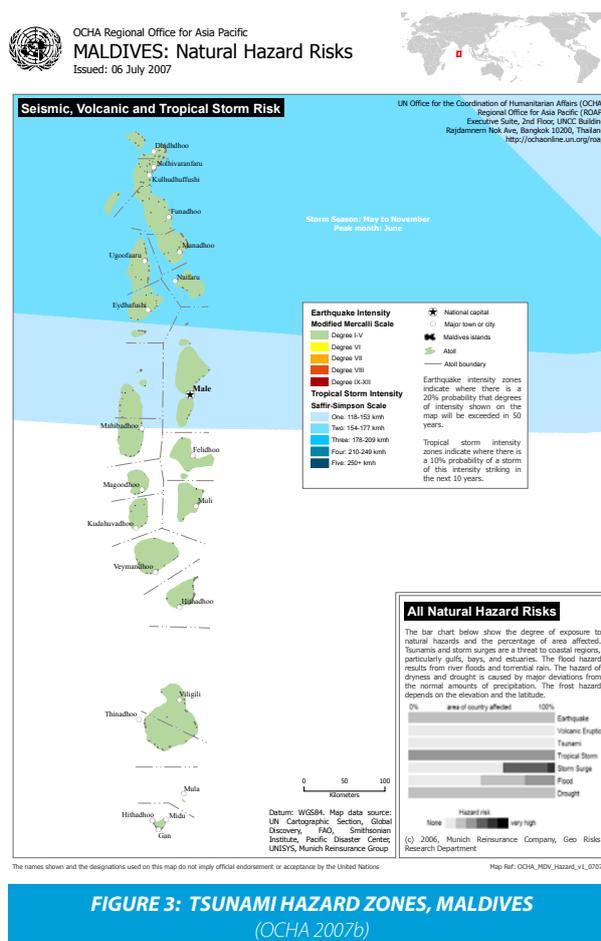
In 2004, the country was affected by the Indian Ocean Tsunami. The event was the most damaging disaster to ever occur in the Maldives. Entire islands were devastated, many lives were lost and thousands of people were displaced. The tsunami significantly impacted the economy, which is heavily reliant on tourism, followed by fisheries (Waheed and Shakoor 2014). It is estimated that the economic losses totaled \$470 million, which equates to 62% of the country's GDP (Republic of the Maldives 2010).

The Maldives has experienced at least 85 tsunamis since 1816. Most of the country's tsunami threats come from the east, with a relatively low risk in the north and south, and reduced risk in the west (figure 3). The highest probable tsunami wave height is estimated at 4.5 meters (UNDP 2007).

The Maldives is also exposed to strong cyclonic winds and storm surges with declining risks in the south. In the north, cyclones can reach category three, with the maximum probable wind speed of 180 kilometers per hour, which would be expected to cause high damage (UNDP 2007). Sea level rise of possible 59 centimeters by 2100 due to climate change increases risk to the Maldives. As a result, it is likely that the Maldives will need to address issues such as

soil erosion (UNDP 2007). Other hazards in the Maldives include prolonged dry periods, storms and flash floods (Republic of the Maldives 2010).

In December 2013, the Maldives Ministry for Tourism announced the 'Disaster Management Guideline for Guesthouses/Hotels'. This legislated document requires properties to provide information on topics including disaster management equipment, floor plans, vulnerability assessment, preparedness and evacuation strategies, risk management strategies for a range of natural hazards, communications and evacuation drills (Ministry of Tourism, Republic of Maldives 2013).



## Phuket, Thailand

Thailand is located in the middle of mainland Southeast Asia, which is an area prone to a range of hazards. These include droughts, floods, tsunamis, landslides and earthquakes, with cyclones posing a minor risk to the northern part of the country.

The 2004 Indian Ocean Tsunami severely affected Thailand's Andaman Coast, particularly the provinces Phuket, Pang-nga, Krabi, Trang, Satun and Ranong, and killed over 8,200 people. Thousands of buildings, roads, bridges, and other physical infrastructure were damaged or destroyed. It hit some of Thailand's most popular beach tourist resorts during a peak period, therefore a large number of foreign tourists were amongst the dead and injured (CAST and UNEP 2009).

Total economic damages were assessed at around USD \$508 million, while losses were estimated at USD \$1,690 million, totaling USD \$2,198 million or around 1.4% of GDP. In Phuket, damages and losses equaled 90% of GDP (Larsen et al. 2011). Following the disaster, there was a significant decline in tourist arrivals (CAST and UNEP 2009).

Phuket Island and province is located 852km south of Bangkok in the Andaman Sea. At 590 square kilometers, it is the largest of 39 other islands and the most important tourism center in the country. Its resident population is approximately 250,000 increasing to 500,000 during the tourism high season. Tourists are attracted to the beaches, mountainous landscapes, and Phuket's array of hotels, restaurants and other activities.

Apart from the Indian Ocean Tsunami, Phuket has also experienced building collapse, hotel fires, SARS and landslides. In response, the Royal Thai Government, in association with provincial agencies, local private and community-based organizations collaborated on a number of disaster risk reduction programs in the region.

The Phuket Tourism Risk Management Strategy 2007-2012 has been designed to unify, educate and improve cooperation and resilience of the tourism industry; to integrate the Strategy into other operational plans (e.g. the National Development Plan, Sub-Regional Development Plan); and to develop a culture of prevention and preparedness in the Phuket tourism industry. The process also aimed to raise awareness among those on the island who believe that preparedness is mainly a government responsibility. The Risk Management Strategy undertook risk assessments, with a summary of the findings presented below in figure 4. It is believed that Phuket is the first destination in the world that has developed such a strategy based on formal risk management principles and processes and using an 'all stakeholders' approach for planning and development (CAST and UNEP 2009).

Hazard	Likelihood of occurrence	Severity of the consequence	Overall level of risk
<i>Flood/Storm</i>	Likely	Moderate	High
<i>Landslide</i>	Likely	Moderate	High
<i>Earthquake</i>	Rare	Catastrophic	Extreme
<i>Tsunami</i>	Rare	Catastrophic	Extreme
<i>Drought</i>	Rare	Moderate	Moderate
<i>Typhoon</i>	Possible	Major	Extreme
<i>Health Pandemic</i>	Possible	Major	Extreme

**FIGURE 4: RISK ASSESSMENT MATRIX FOR PHUKET**  
(CAST AND UNEP 2009)

## Tourism and disasters

“Undoubtedly, tourism industries are one of the most economically important set of industries worldwide” (Pforr 2009). Tourism is also one of the fastest growing sectors in the Asia-Pacific region and contributes 5% of the world’s GDP. It accounts for 6% of the world’s exports in services being the fourth largest export sector after fuels, chemicals and automotive products. Tourism is responsible for 235 million jobs, or one in every 12 jobs worldwide (WTO 2015). In many countries tourism has contributed much to development and plays an essential role in local, national and global economies (UNISDR 2013).

As identified in the 2013 Global Assessment Report (UNISDR 2013), tourism is also one of the most susceptible and vulnerable industries to disasters. The high exposure of tourism to disasters reflects the preference of many tourists to be close to areas of natural beauty, such as rivers and coastlines, on remote islands, in warm tropical environments and mountainous terrains. These locations are often exposed to hazards such as cyclones, hurricanes, storm surges, floods, tsunamis and landslides. Building and development in high-risk locations are also on the rise. As competition and demand for limited coastal locations grows, so does the willingness of investors to use higher risk locations for development (Mahon et al. 2013).

The interrelated nature of the industry further increases its vulnerability and ability of tourism destinations to recover, as it relies on many other industries (e.g. accommodation, transport) and subindustries (e.g. hotels and airlines). It is also greatly impacted by many external factors, such as the currency exchange rate, the political situation and the weather (Pforr 2009).

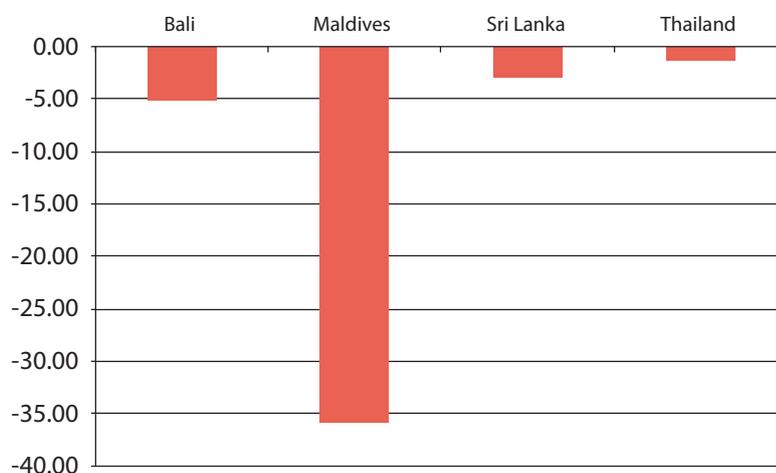
When crises or disasters take place, the tourism industries, tourists and the local communities are affected. Such events divert tourism flows away from not only affected destination but also neighboring regions or countries (Cavlek 2002).

Tourists are especially vulnerable to disaster risks. This is because tourists are mobile, difficult to account for and not easy to reach with relevant and timely information or warnings (Becken and Hughey 2013; Mahon et al. 2013). Tourists are often unfamiliar with the landscape and potential risks. They usually do not have local community links nor speak the local language. In an emergency situation, they may be unaware of how to react or what to do (Niininen 2013). Due to the large geographical and cultural differences, visitors from different regions may under or overestimate risks (Law 2006). A study in the United States (Johnson et al. 2007, cited in Ritchie 2008) found that 46% of visitors were unaware of tsunami warning systems compared to 28% of local people. Research with 603 tourists affected by disasters between 1991 and 1996 in the United States showed that unlike people evacuating from their homes who may find shelter with friends and relatives, many tourists became trapped in heavy traffic and slept in cars, roadside restaurants and other places (Drabek 2000, cited in Ritchie 2008).

Disasters do not only pose a threat to the lives of tourists and workers, they have wider impacts on communities relying on tourism for their income. When a major disaster strikes a tourism destination, there are immediate repercussions to the tourism industry. The response often includes immediate booking cancellations, redirection of tours to alternative destinations and/or closing of tourist facilities. The impact of events may also cause the repositioning of cruise ships, changing of air routes, and loss of access to tourism destinations. The impact may last for months or years and may influence tourist numbers in both affected and neighboring locations. Furthermore, it may take the industry a long time to bounce back, even when conditions have changed and order is restored.

Terrorist attacks, rebellions, civil strife and natural hazards tend to affect not just the places where they occur; entire regions may see reductions in tourist arrivals due to incidents even in neighboring

**FIGURE 5: INTERNATIONAL TOURIST ARRIVALS DECLINE (%) BETWEEN 2004 & 2005**  
(Relevant NTOs/NSOs, data compiled by PATA)



countries (Niininen 2013; WTO 2014). Following the 2004 Indian Ocean Tsunami, many tourism destinations that were affected have experienced significant declines in tourist numbers (figure 5). This is reinforced with research conducted by Huang and Min (2002, cited in Mahon et al. 2013), which found that in the case of the 1999 Taiwan earthquake, it took over a year until international tourist arrivals recovered to previous levels.

There has been limited research in disaster risk management and risk reduction in tourism. The work that has been done suggests that despite the exposure and vulnerability of tourism to natural hazards, the industry tends to be poorly prepared (Faulkner 2001; Ritchie 2008). Some of the reasons for this has been identified as being due to “negative attitudes towards crisis planning, a perceived lack of responsibility for dealing with crises, lack of money, lack of knowledge, lower risk perception and/or the, small size of the organization” (Wang and Ritchie 2012, cited in Becken and Hughey 2013). Hystad and Keller (2007) found that barriers to disaster risk management by tourism businesses in Canada included a lack of money (68%), lack of knowledge on what a disaster management plan includes (47%), inability to make changes due to the small size of the business (23%) and a perceived lack of cohesion in the tourism industry (14%) (cited in Ritchie 2008).

Hystad and Keller (2007, cited in Ritchie 2008) discovered that many hotels feel that the key actor responsible for tourist safety in disasters are the disaster risk and emergency management agencies, and that their role as hotel managers lies mainly in recovery efforts. This, along with perceptions that dealing with such events are beyond hotel managements control, may affect the propensity of the tourism industry to effectively prepare for such incidents. This is contradictory to the perceptions of tourists, with Drabek’s (2000) work suggesting that tourists felt that the main responsibility for their safety and security while at a hotel is with the lodging management (cited in Ritchie 2008).

Research with local and regional Malaysian hotels further highlights the challenge of integrating disaster risk management into hotels. AlBattat and Som (2014) found that most of the hotels reviewed did not have emergency plans. Hotel managers argued that such plans were futile in reducing risks to disasters and that it would be a waste of resources, because a crisis is unlikely to affect them or even if it did, they could manage their business during a crisis without a plan. Research also identified that international hotels and those hotels that had been affect by a disaster previously were more likely to invest in and develop emergency plans (AlBattat and Som 2013).

However, reaction-focused emergency plans are not enough. Ritchie’s (2008) work shows that even when disaster risks are being considered, there is too much emphasis on disaster response and recovery, and not enough on holistic and integrated approaches to reduce risks.

The need for better risk management in hotels is also supported by some hotel managers, who have publicly stated that hospitality curricula are too focused on topics such as human resources and not enough on safety and security. In this regard, it is also recognized that explicit risk assessment and management is becoming more important to demonstrate due diligence and protect hotels against litigation and fines (Hotel News Now 2011).

## Key points

- Tourism is often exposed to disasters due to the location of many destinations in tropical, coastal and mountainous areas
- Tourists are often vulnerable to disasters due to their unfamiliarity with the destination, the exposure to natural and technological hazards, to and the lack of local networks and communication avenues
- The tourism economy is vulnerable to disasters as events often result in decreased tourist numbers and, particularly in Asia, communities in tourist destinations are heavily reliant on tourism as a primary income
- Insufficient research into the disaster resilience of hotels has been conducted
- Many hotels feel that the responsibility for disaster resilience and safety of tourists lies with government authorities
- Hotels that have experienced disasters and international hotels are likely to be more active in their disaster risk management and planning

## Tourist perceptions of risk

People's self-assessment of risk (risk perception) influences their decision to travel - or not - to certain destinations (WTO 2014; AlBattat and Som 2013; Lo et al. 2011; Mahon et al. 2013; Law 2006; and Rittichainuwat 2013). The reason is that many tourists tend to prevent risk by avoiding travel destinations they perceive as vulnerable or unsafe (Mahon et al. 2013; Law 2006). Research indicates that travelers are most concerned with (1) crime, (2) terrorist attacks and (3) disasters (Law 2006) and women, middle-aged and less-travelled tourists are more likely to perceive risks as higher. People with lower levels of education and those born in their country of residence are also likely to perceive their risks as higher (Williams and Balaz 2013). Travel advisories that are provided by foreign ministries can also have an impact on foreign tourist arrivals.

Guests consider safety as an important hotel selection criterion along all price brackets (Rittichainuwat and Chakraborty 2012). Guests who stay at mid-priced hotels look for safety features in the same way as guests who stay at luxury and upscale hotels. However, their responses to the intensity of safety measures vary across places and situations. For example, guests at upscale hotels have been found to be less accepting of overt safety measures than guests at economy hotels (Rittichainuwat and Chakraborty 2012). Business tourists do not overlook safety during the hotel selection process, however, they are likely to expect fewer safety features at beach resorts than at airports and city hotels because they believe that these resorts give greater attention to property aesthetics and ambience rather than to strict measures (Enz and Taylor 2002, cited in Rittichainuwat 2013).

Lo et al. (2011) found that travelers tend to use their own risk reduction strategies when traveling to destinations that they may deem less safe. These strategies are classified into two types: (a) information related strategies to increase the certainty or confidence of the traveler, and (b) travel-specific strategies, which aim to reduce the consequences of risks. These include: reading travel reviews or brochures; learning about the destination culture; searching for the latest information of the destination; seeking advice from family, friends, and travel agents; using more reputable hospitality service providers; learning to speak the local language; purchasing travel insurance; traveling in tour groups; bringing necessary medicine or first-aid kit; getting immunization vaccines; bringing extra cash; bringing laptops during travels; and spending more time planning the trip. This suggests that those that perceive the risk as high will search for information to better understand the risk and develop strategies to minimize that risk.

Barriers to an initiative that communicate risks and risk management to guests openly exist. Many suppliers of tourism products perceive that overt safety measures could cause visitors to become concerned about the risks at the site. Additionally, they believe that when tourists visit with the assumption that the destination is safe, they should not worry guests by informing them of a past or potential tragedy at the site (Tarlow and Santana 2002, cited in Rittichainuwat 2013). Such concerns about negative tourist perceptions have stopped some operators from providing information to tourists on hazards and discussing existing risks openly. However, the literature indicates that some tourists would be very interested in reducing their exposure to the adverse impacts of physical hazards and would prefer to receive relevant information on their destination (Mahon et al. 2013).

### Key points

- Risk perception is an important part of a person's selection of a tourism destination
- Disasters are one of the top three risks people list for international travel
- Effective disaster risk management in hotels is expected by hotel clients in all price categories
- Risk averse travelers will search for information and strategies to reduce their vulnerability to risks

## Potential drivers and barriers for strengthening hotel resilience

The literature review identified a number of examples of how initiatives that aim to strengthen resilience to disasters may have market benefits for hotels. These are outlined below:

**Finance** – The banking sector can play an important role in reducing disaster impacts. It has the potential to address operational shortcomings in government regulatory processes and raise the disaster resilience of tourism building stock through incentives or enforcing compliance. For example in the Cook Islands, banks require a building permit before approving home loans. In Fiji where the banking and insurance sectors work together, the banks require compulsory insurance contracts against specific physical hazards before lending. Additionally, insurance services are only available to a developer or operator on issuance of a third party certification on building standards from an insurance industry-approved engineer (Wright 2013).

**Insurers** – Insurers can provide economic and financial incentives to improve the disaster resilience of those they insure, such as reduced premiums that take risk reduction into account (Mahon et al. 2013).

**Tour operator legislative responsibilities** – Under the European Community Directive on Package Travel (1990), travel organizers are liable to the consumer for the proper performance of their obligations. Hence, carriers and accommodation providers in the Asia Pacific include such obligations by virtue of their contractual arrangements. Particularly, outbound tour operators exercise greater control over their overseas-partnered accommodations than domestic tour operators because they are liable for the safety and security of their clients at overseas destinations (Rittichainuwat 2013).

**Guidebooks** – Research has suggested that risk averse people tend to rely on guidebooks for advice on destinations (Williams and Balaz 2013). Using these as a communication tool to promote the risk reduction activities of a hotel could translate into increased bookings.

**Costs** – Research by Mahon et al. (2013) found that the costs associated with the implementation of disaster risk reduction measures were seen as prohibitive in the context of limited financial resources and competing business concerns, especially when there was uncertainty around the occurrence of future events. This was compounded by the limited timeframes of businesses in which infrequent disaster risks such as tsunamis or gradual risks such as climate change occur (Mahon et al. 2013).

## Standards and certification in the hotel industry

The Hotel Resilient Initiative aims to develop international recognized risk management standards to build disaster resilience in hotels, with the potential to use these standards for a certification system in the future. Below is a summary of what constitutes a standard and how certification is defined as well as some examples that may be of interest to the Initiative.

**A standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose** (ISO 2015).

**Certification is “the provision by an independent body of written assurance (a certificate) that the product, service or system in question meets specific requirements”** (ISO 2015). A certification is therefore recognizing the compliance of approved standards. Certification is often used interchangeably with the term “accreditation”, however accreditation refers to “the formal recognition by an independent body, generally known as an accreditation body, that a certification body operates according to international standards” (ISO 2015). In other words, accreditation is recognizing the competence of a certifier. Figure 6 illustrates how the processes of standardization, certification and accreditation are connected.

Certification sets standards and helps distinguish businesses from others that make empty claims. This helps to protect the integrity and promote trust in the concept (Bien 2008).

There are different types of certification. Some of the main distinctions among programs are (a) first, second, and third party certification, (b) process- versus performance-based systems, and (c) multiple levels versus pass-fail awards. All of these systems usually follow generally accepted rules.

- (a) First-party certification refer to self-evaluation; second-party certification is when a purchaser or industry body assures that the product meets the purchaser’s standards; third-party certification is when a neutral, independent third party evaluates the compliance of the product with clearly defined standards. Most credible certification programs require third-party assessment (Bien 2008).
- (b) Process-based systems certify businesses that have established and documented systems for assuring the improvement of performance. Performance-based systems certify whether or not a business or activity complies with objective external criteria (e.g. an established standard) (Bien 2008).

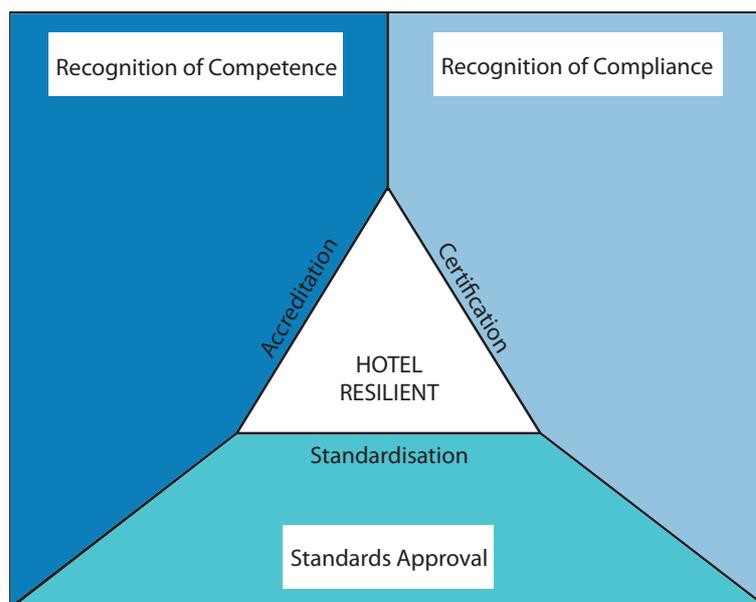
In the tourism industry, different organizations have developed a range of third-party certification programs measuring different aspects of tourism. In the hotel industry, certification (for example “star” rating) has existed for decades, whereas other types of certification, such as for

sustainability or food safety (see Box 1 on the HACCP system), have only been around since the early 90’s (Bien 2008).

Certification is not an end but one of a number of tools for motivating businesses and others to improve their performance, while rewarding them for doing so. The benefits of certification vary. For businesses, certification can improve existing systems. It can also provide a market advantage as clients and customers can be confident that the business is acting responsibly and proactively addressing the topic at hand. At industry level, it can also increase the overall standard of practices (Bien 2008). Certification can also raise the profile of a brand and/or destination and make it synonymous with sustainability, quality, and/or safety, especially when it permits the use of logos or labels for marketing purposes (Marchoo et al. 2014).

Although well-designed certification programs can differ considerably, they almost all have some similar components. These include voluntary enrolment by businesses, well-defined standards and criteria, assessment and auditing, recognition and awarding the use of a logo, periodic follow-up audits to renew the certification, continual improvement, transparency and participatory mechanisms to define standards (Bien 2008).

Ensuring fairness and objectivity is important for the design of any certification program. The generally accepted guidelines and definitions for how to certify are based on guidelines established by consensus among the members of the International Organization for Standardization (ISO). Most of their members are officially recognized national standards institutes and accreditation bodies from small and large countries, in all regions of the world. ISO has published hundreds of guidelines, definitions, and standards (Bien 2008).



**Figure 6: Triangular of Standardization, Certification and Accreditation**  
(Author based on TÜV Rheinland)

The implementation of effective disaster risk management through certification programs and voluntary rating systems to create shared value were one of the recommendations raised in the Global Assessment Report on Disaster Risk Reduction (UNSIDR 2013). This is because market mechanisms can go beyond regulations to promote best practices and create market drivers for adoption.

Pennington-Gray et al. (2013) support this argument proposing that tourism crisis preparedness certificates can lead to perceptions of a safer destination because it ultimately achieves two goals: (1) it forces the destination to continually monitor safety in the destination and check for gaps in safe practices; (2) it “brands” the destination as a safe destination for the consumer. Mahon’s et al. (2013) research found that the idea of a disaster risk reduction accreditation system to address this need received favorable comments from a number of interviewees. Mahon et al. (2013) also state “*voluntary industry action through certification programs that make a strong connection between disaster resistant standards and incentives and benefits could be a valuable mechanism in increasing private sector disaster risk reduction investment*” (p. 18).

For these reasons, certification is often credited as a beneficial marketing tool for tourism operators (Ho 1994; Honey 2002, cited in Pennington-Gray et al. 2013). Tourists often perceive certification programs as a symbol of trust and higher standards. Research also suggests that a risk management certification tool will likely translate into increased bookings if the individual perceives the risks to be high (Marchoo et al. 2014; Foster 2007).

The tourism industry is beginning to promote and support the idea of a certification system that aims to strengthen resilience. Examples of certification programs for resilience have been identified. However, these either address destination needs, fail to specifically address the requirements of hotels, only address one specific hazard or are country-specific.

Existing examples of certification and standards that are relevant to Hotel Resilient are outlined here:

- The **ASEAN Tourism Standard** recognizes the importance of safety and security and recommends to address risks that include (i) Availability of officials/local guards to take care of safety and security for visitors; (ii) Availability of trained staff to deal with disasters/emergencies; (iii) Availability of communication tools/systems and emergency plans; (iii) Adequacy of medical facilities and emergency response; (iv) Availability of emergency plans; (v) Provision of information about the area (e.g. prohibited area, dangerous areas and animals) for visitors before entering the site.
- **Tsunami Ready** is a tsunami safety standard that is coordinated by the Bali Hotels Association in Indonesia. It cooperates with the Ministry of Culture and Tourism of the Republic of Indonesia and ASEAN to train and certify hotels and places that are prepared for tsunami risks. Tsunami Ready certifies hotels and places that have implemented policies and procedures in the following areas: Information sources and interpretation; decision-making; evacuation procedures; evacuation route and shelter; post tsunami; earthquake; and community relations and cooperation. This suggests mainly a preparedness and disaster response focus.

### Box 1: The History of HACCP – developing standards for food safety

Hazard Analysis & Critical Control Points (HACCP) was developed in the late 1950s by a team of food scientists and engineers to ensure food safety for the manned space program. By 1963, the World Health Organization and Food and Agriculture Organization of the United Nations (FAO) issued HACCP principles in the Codex Alimentations.

In 1971, the American food company, Pillsbury presented HACCP at the American Conference on Food Protection and by 1974 the FDA incorporated the concepts of HACCP into some of their food regulations in response to disease outbreaks in commercially canned food. In 1985, it was recommended that HACCP becomes a regulatory requirement by the National Research Council of the National Academy of Sciences.

In 1993, the Codex Alimentarius Commission issued its first HACCP standard, which provided the first international definition for HACCP. In the same year, the National Advisory Committee on Microbiological Criteria for Foods revised its guidance standard, thus codifying the currently used five preliminary steps and HACCP entered into the regulations of Europe Community Countries. By 1996 it was applied across the entire food industry in Europe.

By 2000, there were many private and national food safety standards. Although the standards were similar, significant differences among them led to problems in third-party certifications. As a result, Danish Standards petitioned the International Organization for Standardization (ISO) to develop a standard. In September 2005, ISO 22000 “Food safety management system - requirements for organizations in food chain” was developed.

However, it should be noted that HACCP in the United States was driven by the marketplace rather than by regulations. Customers like McDonald’s required all of their suppliers to implement HACCP to ensure the safety of the food sold in their restaurants. Other suppliers soon followed suit. HACCP is now an accepted and often regulated industry standard wherever food is prepared (HACCP for Excellence 2009).

There are two types of Tsunami Ready levels of preparedness that include 'registered' and 'certified'. Tsunami Ready registered places have applied for Tsunami Ready certification by submitting a very comprehensive and detailed audit document to Tsunami Ready. If the document meets the standards, the place is 'registered' and listed on the Tsunami Ready website. Tsunami Ready registered places need to be certified within six months after registration otherwise they lose their status and are removed from the Tsunami Ready website. Tsunami Ready certified places have passed an on-site audit that reviews if policies and procedures are implemented. If necessary Tsunami Ready provides additional training to the hotel staff, and assist them in improving preparations. Tsunami Ready certified places are authorized to use the Tsunami Ready logo and are announced to travel agencies, embassies and consulates worldwide (Tsunami Ready 2012).

- During the 1990's the Australian tourism industry recognized the importance of quality assurance as a means of gaining competitive advantage. In 1998, the **Australian Tourism Accreditation Authority (ATAA)** was established to develop and administer the system on a national level. The accreditation system includes the following parameters: documentation and processes, business planning, human resource management, workplace safety, risk management, environmental management and customer service. Research has suggested that many operators felt that the process of applying for and obtaining accreditation has had a beneficial impact on their operations. They suggested it had particularly benefited their work in the areas of 'health and safety standards', 'staff turnover and morale' and 'overall business operations'. However, some operators have expressed disappointment, suggesting that accreditation did not provide the marketing impact that they had expected (Foster 2007).
- **SafePlace Lodging Facility Accreditation Program:** This is a United States based accreditation program for hotels. This program focuses on safety and security. It identifies factors such as mitigation for liability for negligence, insurance premiums and marketing as potential benefits of the program. They have also determined meeting organizers and VIP's as key markets for the program due to increased liability and security concerns. They also noted that it has been easier to gain adoption from independent rather than chain hotels due to increased flexibility of independent operators ([www.safeplace.com](http://www.safeplace.com)).
- **Cristal International Standards** provide software to more than 80 of the world's best hotel groups to help them maintain standards in all of their global sites. Cristal International Standards includes experts in a variety of disciplines that have experience in providing quality, standards and risk management solutions tailored specifically to hotels. The standards involve independent auditing and focus on a range of services including food safety, pool and spa water quality, fire, safety (which reports on everyday health and safety items such as slips and trips), environment, tour operators and crisis (which helps hotels be prepared for events in areas of the world where natural hazards are a potential threat to business continuity) (Cristal International Standards 2015).

# Disaster risk management tools and frameworks

## The Faulkner Tourism Disaster Management Framework

Scholars consider Faulkner's (2001) Tourism Disaster Management Framework as a valuable generic framework for tourism disaster management strategies. The Framework describes six stages in the disaster process. These include 1) Pre-event - when action can be taken to prevent or mitigate the effects of potential disasters; 2) Pro-dromal - when it is apparent that a disaster is imminent and efforts are mobilized; 3) Emergency - when the effects of the disaster are felt and action is necessary to protect people and property; 4) Intermediate - a point where short term needs have been met and recovery efforts are made to restore services and the community to normal; 5) Long-term (recovery) - which includes a continuation of recovery efforts along with reconstruction and reassessment; and 6) Resolution - where routine is restored.

Faulkner (2001) recognizes that for disaster management plans to work in practice, internal factors such as collaboration, communication, and control are crucial and need to be underpinned by management's commitment to an emergency management plan, which will be a guiding tool before, during and after a disaster. Ritchie (2008) builds on Faulkner's (2001) Framework and notes that risk assessment and analysis, review of mitigation options, emergency planning, preparedness (simulation and training) and communications are core areas to consider in any disaster risk management plan. Ritchie (2008) notes that knowledge of vulnerability and risks is important to understand how disasters may be mitigated or prevented, and suggests that risk assessments that review physical, economic and social vulnerability are conducted.

## The Australian Sustainable Tourism Cooperative Research Centre "Tourism Risk Management" Guide

The "Tourism Risk Management: An Authoritative Guide to Managing Crisis in Tourism" has been developed by the Asia-Pacific Economic Cooperation (APEC), the International Centre for Responsible Tourism (ICRT) in conjunction with the Australian Sustainable Tourism Cooperative Research Centre (STCRC) in 2008. The Guide provides useful information for tourism operators and managers on best-practice processes to develop a risk management strategy for a destination or a business, how to implement the strategy and maintain its effectiveness over time. It provides a practical overall framework from which a destination and/or a business can apply crisis management strategies for prevention, preparedness, response and recovery actions in relation to any event. The guide is accompanied by three half-day training programs that provide both a general overview to risk management in tourism and specific directions on the development of risk management strategies for destinations and businesses (Robertson et al. 2006).

## PATA's Four R's

PATA's four R's model on Reduction, Readiness, Response, and Recovery is a crisis management framework for the tourism industry.

In the reduction phase, the focus is on increasing crisis awareness through potential crisis identification, securing political awareness, and designing standard operating procedures to address the potential impacts that the crisis will have on the tourism industry. These procedures are developed through SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis.

The readiness phase refers to the development of a strategic, tactical plan to manage the potential crisis, including both an operational plan and a communication plan. In the readiness phase, destinations have three areas to manage: (1) the crisis management plan; (2) a community awareness plan; and (3) an operational plan to manage health and safety in order to protect lives and property (PATA 2003).

The response phase refers to the planned strategies, which are implemented during the actual crisis. This phase enables the implementation of the plan, as well as measuring its effectiveness. In the response phase, destinations test their emergency response, engage in research to measure changing attitudes and behaviors of consumers during the crisis, assist families and tourists in the destination and employees and their families, and facilitate a communication procedure (PATA 2003).

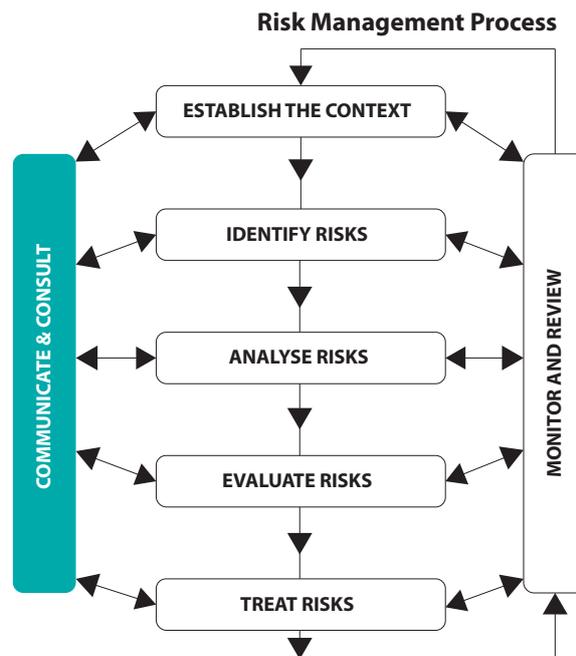
The recovery phase refers to procedures and plans that are designed to return a community to normalcy through managing the effects of a crisis. This phase includes business continuity plans, human resource plans for employees affected by crisis, and the evaluation process after the crisis is over. Lastly, a feedback loop allows for adjustments to the plan and applying newfound and tested strategies. Feedback is essential because by incorporating lessons learned from past crises, the overall quality of the plan can be improved (PATA 2003).

## Australia/New Zealand Standard 4360-1995 Risk Management

In 1995, the Australia/New Zealand Standard 4360-1995 (A/NZS 4360-1995) for Risk Management was published. Developed to provide a generic framework for organizations in the identification, analysis, assessment, treatment and monitoring of risk, the Standard enables organizations to manage risk, minimize losses and to maximize opportunities. The Standard was revised in 1999 and updated again in 2004. The basis of the process is represented in figure 7. The Disaster Risk Management process was originally developed in Australia by Emergency Management Australia and has since been further developed for other purposes. In the Pacific, for example, the Disaster Risk Management process has been adapted to meet local needs and is known as CHARM (Comprehensive Hazard and Risk Management).

Robertson et al. (2006) suggest that while it was clear that the A/NZS 4360-1995 Risk Management Standard could be applied outside of an organizational context, the process of adapting this Standard for use in a disaster risk management context needs to consider the following key issues:

The Australia/New Zealand Risk Management Standard contains a process developed for single organizations and industries, but disaster risk management involves multiple organizations working within a community context; and in industry terms, risk is measured regarding its likelihood and consequence of a hazard impacting upon an organization, a rather mathematical approach especially suited to engineering. Disaster risk management, however, sees risk as a function of hazard and the vulnerability of communities in a sociological approach.



**FIGURE 7: THE AUSTRALIAN / NEW ZEALAND STANDARD FOR RISK MANAGEMENT**  
(Emergency Management Australia 2004)

# Method

For this study, 17 semi-structured interviews were conducted to assess needs and demands for disaster risk management in the selected destinations (Bohol and Cebu in the Philippines; Lombok in Indonesia; Phuket in Thailand; and the Maldives). Interviewees were identified and contacted through the Hotel Resilient Steering Committee.

The study targeted senior people within their organizations with various experience and/or understanding of the tourism market and disaster risk management. Interviewees included representatives from hotels (independent and chain  $x=10$ ), tourism ministries ( $x=3$ ), tourism industry associations ( $x=1$ ), tour operators ( $x=2$ ) and insurance ( $x=1$ ). In some cases, interviewees represented more than one category (e.g. hotel and industry associations). Interviewees all had tourism industry links and expertise relating to one or more of the selected destinations.

One test interview was conducted to inform the questionnaire development.

Interviews were conducted over the phone or via Skype and ranged from one-hour to 30 minutes.

The interview questions focused on six key areas including: context of the interviewee, risk perception of tourists, hotel risk management, standards and the Hotel Resilient Initiative. These questions aimed to understand both the opportunities and barriers to the Hotel Resilient Initiative, and also gain information on what would be important to include in the Initiative.

Analysis was conducted by identifying key themes among interviewee's as well as comparisons to establish a narrative to inform the Hotel Resilient Initiative.

# Results

In this section, the main themes unveiled through the interviewing process are presented. The number (i.e. x=6) following comments indicates the number of interviewees that made comments supporting the statement.

## 1. Tour operators (and/or travel agencies) and those arranging conferences or corporate retreats assess hotel risks

Some interviewees (x=9) noted that there are tour operators and travel agencies, especially from Europe that have asked questions about risk management practices via questionnaires and site visits. The surveys tend to seek information on security (e.g. night guards), evacuation procedures, risk management equipment (e.g. fire extinguishers) and evacuation plans. However, the extent to which they used this information to influence room bookings did not appear to be high.

A number of interviewees (x=5) felt that these procedures were a response to the tour operator legislation of these countries (e.g. the European Community Directive on Package Travel 1990). It was also noted that if a hotel had been assessed and approved by a German or UK wholesaler, other wholesalers would presume the hotel was safe.

Some hotels mentioned that they had amended their practices as a result of comments from auditors (x=4). The interviewees noted that a certified standard could replace the need for auditing by individual tour operators and prevent duplication in auditing if the certification was trusted and recognized by the broader industry (x=3).

Interviewees identified that coordinators of conferences and corporate retreats also tended to ask questions about safety and security (x=4), however, the information requested from the hotels for bookings varied significantly (x=3).

## 2. Disaster risks are not a significant factor in tourism destination and hotel selection, but awareness of the risks is growing

Most interviewees felt that disaster risk perception did not have a significant impact on the selection of a destination (x=10). Many felt it was also not a factor in the selection of an individual hotel (x=11) by tourists. One hotel manager noted that...

*'During the typhoon, people went out to take pictures; they did not really understand the risk, even though we had told them.'*

However, most interviewees felt that risk awareness was increasing (x=4). They also identified that following a disaster event tourist numbers declined (x=8). Due to these reasons, some interviewees felt that there was a growing market potential for Hotel Resilient (x=6), especially for the US, Australian and European family; corporate retreat and seniors travel market, which tend to be more risk averse.

Most interviewees noted that non-disaster related risks, such as security and health (e.g. contagious illness, food safety) were more likely risks that could affect guests (x=11) and that they would request information on these topics compared to natural hazards (x=8), espe-

cially following an incident in the destination (x=6).

Some interviewees also mentioned the need to balance information on risks with the atmosphere of the hotel being a relaxed, pleasant and safe environment as to not concern the guest and negatively impact their stay (x=5). Because of this, some hotels did not involve guests in evacuation exercises, especially in resorts on large spaces of land, while other hotels have invited their guests to take part in exercises (x=4), especially if the hotels were located in multi-story buildings. In one example, the event was treated like a fun exercise, and the response from guests was positive.

## 3. Small hotels rely on their own experience to develop risk management strategies

Interviewees stated that risk management strategies in small hotels tend to be designed based on the experience of the upper management (x=6). Some small hotel representatives mentioned that they do not have the support of a 'head office' to guide them in the direction of best practices and to provide specialist advice (x=4).

## 4. Chain hotels have their own audited systems

Those interviewed noted that chain hotels have thorough systems, processes and requirements in place for disaster risk management that are audited on a regular basis (x=5). They also noted that corporate support is provided to hotels (x=4), which includes assisting hotels during disasters (x=3), crisis management software (x=2), provision of experts when necessary and the standards, policies and protocols developed on behalf of hotels (x=5). Some representatives from chain hotels (x=3) noted that they would be willing to work with other hotels to refine their protocols and improve the overall resilience of destinations.

Chain hotels mentioned that by having the audit process in place, they were forced to address the 'boring stuff' (e.g. checking batteries of walkie-talkies) on a regular basis, and that it prevented them from becoming complacent (x=3). As these hotels have existing standards and processes in place, interviewees commented that it would be difficult for these standards to change much to align with an external certification system (x=3).

## 5. The development of international recognized standards to strengthen disaster resilience is supported by many in the industry

The Hotel Resilient concept was positively received by those engaged in the hotel industry (x=14). Interviewees noted that at the destination level, disaster risk management is often 'ad hoc', with different hotels taking different approaches (x=3). Interviewees mentioned that standards would promote consistency and best practice (x=9). A number of people mentioned that standards would be especially useful for non-chain hotels looking to improve their disaster risk management (x=5). Some mentioned that this would mean that in a time of crisis, hotels may even be able support each other if one hotel was affected more than another (x=3).

It was also mentioned that having standardized processes and procedures could be beneficial in managing the high turnover of staff

(x=3) experienced by many in the industry, as it would be easier for staff to adopt the procedures as they move between hotels. It would also make it easier for hotels to build on staff's skills and knowledge (x=3) if there was a baseline understanding.

## 6. Certification systems need to be trusted

If a certification system was to be established, most interviewees felt that an independent, non-governmental organization should manage it. It was believed that this would increase trust in the Initiative (x=5), especially if the business was located in a country with a reputation for reliable risk management procedures, such as Europe or Australia. It was also mentioned that the certifying agencies should be spot-audited, to further promote trust in the system (x=3).

## 7. People are unsure of the marketability of risk management certification systems

There were mixed responses to questions regarding the marketability of risk management to guests.

Some felt that there was a market potential for certification (x=8), especially in the Philippines considering the number of disaster events in recent years and increased tourist awareness. Some independent hotels (x=4) added that certification would be a good way of demonstrating their effective risk management practices, as there is currently nothing available that allows them to do so. Other interviewees (x=4) did not see a market potential.

Some interviewees also mentioned that other strategies such as training (x=10) and awareness raising activities (x=6) would be important to complement the Initiative. Some interviewees (x=4) suggested that any certification system should be initiated with industry leaders, as they have the capacity to implement and test the system (x=4). Some also suggested that if leading hotels take part in a certification program, other and also smaller hotels would follow (x=3).

## 8. HACCP is a successful example of certification

When asked about certification, some hotels (x=4) mentioned high infiltration of HACCP in hotel businesses, reflecting its success and indicating the potential for the Hotel Resilient Initiative.

## 9. Barriers (cost, time, capacity, structure)

Hotel industry personnel identified issues such as cost (x=5), time (x=5) and capacity of staff (x=5) as potential inhibitors to the Hotel Resilient Initiative.

It was suggested that any program should consider the different needs of hotels and provide support accordingly. One hotelier suggested that certification costs could be based on a per room basis, to make it easier for smaller hotels to get involved. Two hoteliers also mentioned that the Initiative would need to approach hotels in off-peak season, when there is more time for staff to undertake training.

When asked about inclusions and exclusions for a certification system or standards, some interviewees mentioned that structural assessments were already a part of hotel procedures and processes (x=4) or due to government program following seismic events. Cost and challenges in making structural changes suggested that this

could lessen the number of people interested in being a part of the Initiative (x=5).

## 10. Insurers do reduce premiums due to effective risk management practices

Some interviewees (x=3) provided examples where their hotel was able to gain a reduced insurance premium by demonstrating proactive approaches to reducing their risks. This appeared to be common among large and chain hotels. Smaller hotels often noted that they haven't had this conversation with their insurer (x=3). One small hotel did provide reports to their insurer, but it had not resulted in any premium reductions. Another hotel noted that they didn't feel they had enough evidence to negotiate a lower premium.

In some chain hotels (x=3), insurers worked alongside hotels to assess risks and identify methods to reduce those risks.

## 11. Legislated requirements for risk management do exist

Legislated requirements for hotels were mentioned for most of the destinations. Hotels are usually required to demonstrate that they have some procedures, processes and systems in place to address risks, including natural hazards, and that they meet structural requirements. However, these legislated requirements do not tend to provide guidance on what is best practice. Some interviewees (x=6) noted that the foundation systems could be strengthened by a non-regulated, market focused program.

In other cases, voluntary programs are being developed (i.e. Hotel Restaurant Association of Indonesia) with the goal of having them legislated as a part of the hotel licensing process in future years. The Tsunami Ready example was also noted as a good practice for tsunami hazards and was valuable in increasing the capacity of the industry and promoting hotel cooperation.

## 12. Working alongside government agencies in disaster risk reduction is essential

Many interviewees identified the importance of working alongside the government agencies that play a role in disaster risk management if any disaster risk reduction measures are to make a difference (x=9). This is due to the importance of these agencies in addressing risks such as road access, planting trees to prevent landslides, early warning systems, in communicating changing risks and in response.

## 13. Information sharing and partnerships are important

Interviewees commented that they felt that sharing information between local hotels would be an effective way of addressing risks, building capacity and bringing hotels with less experience up to a higher standard (x=5). This was also identified as a potential strategy for ensuring risk management strategies to meet local needs and reflect local issues and risks, which was identified as being relevant (x=5).

Some interviewees (x=8) suggested that there needs to be a destination approach to disaster risk management programs, as guests often venture outside their hotel. One hotelier suggested that some of their local waterfalls are prone to flash flooding and would benefit from an early warning system.

Interviewees also suggested that small and medium hotels may not feel comfortable being formally audited especially in the early stages of the program, and that partnerships and support may be more effective to begin with (x=3). It was also suggested that easily accessible templates and tools would be valuable in gaining adoption of the standards (x=4).

#### **14. The importance of training**

A number of people mentioned the importance of training to ensure that staff are prepared for disasters and are confident of what to do in an emergency situation (x=10). One interviewee mentioned that this was particularly important for people who had been traumatized by previous events, as training improved their ability to respond in an emergency without getting overwhelmed.

#### **15. Needs in destinations**

Trends emerged in the interviews regarding the needs of the different destinations. However, due to the limited number of interviewees per location, further work is required to confirm this information.

In Cebu, Bohol and Lombok, capacity building and standards were preferred over a certification system due to a perceived lower capacity and limited resources.

In Phuket, a combination of approaches was favored due to the gap between experienced hotels that aim to refine their systems and gain a market advantage and small hotels that have less knowledge on disaster risk management.

In the Maldives, certification was seen as a strategy to bolster and recognize the existing legislation that hotels need to align with. Group activities were identified as challenging due to distances between hotels and costs associated with transport. Furthermore, high hotel room occupancy rates may prevent some hotels from being interested in engaging in certification processes.

# Recommendations

As a result of the literature review and the interview results, it is recommended that the Hotel Resilient Initiative considers the following recommendations when proceeding to the next phase of implementation:

**1. Develop international recognized standards** to promote best practice behaviors and to create more alignment between risk management approaches between hotels. Those standards should be flexible enough to reflect local needs and hazards and should be completed with awareness raising, training and templates to encourage effective adoption.

**2. Work with hotel industry leaders** to develop and pilot the standards and begin establishing industry norms. Determining who the industry leaders are in each destination will be an important part of the establishment of a pilot program.

**3. Reflect relevant legislation.** Any standard or certification will need to ensure that there is no contradiction and prevent duplication with legislation.

**4. Promote both legislative and market forces** to obtain adoption of those standards. The example of HACCP shows that standards can develop into both certification systems and legislative measures. They do not have to be mutually exclusive, as different regions have differing needs and capabilities.

**5. Focus on business to business marketing of the Initiative** rather than business to consumer. Wholesales, tour operators, conference organizers and industry associations are already demanding effective risk management, demonstrating market opportunities. Furthermore, hotels may be apprehensive to highlight the Initiative to avoid concerning guests about potential hazards.

**6. Engage global insurers and industry associations** to promote and inform the Initiative and identify key elements they consider important. There is great potential for these groups to influence adoption.

**7. Create local partnerships among stakeholders** that include respective ministries and governmental agencies in the field of disaster risk management and tourism agencies and the private sector to promote cooperative and coordinated arrangements and to address hotels as well as broader risks in the destination.

**8. Consider the needs of the industry** and conduct activities in low peak season and adapt the costs relative to the size of the establishment. In the long term, consider focusing on a more comprehensive risk management system, as some non-natural hazard related risks are of more concern to some hotels and can be managed using similar tools and systems to that of the Hotel Resilient Initiative.

**9. Consider certification in phase two of the Initiative**, when the standards have been tested and extensive support from the global industry is obtained. Certification is a complex and long-term strategy and should not be entered into lightly. Any certification system should use an independent, accredited agency, preferably European or Australian. This will be important in creating trust and independence in the certification. In order to ensure the integrity and accountability of the system, the certifying agencies should be also audited by an independent body.

# Conclusion

*This scoping study confirmed that international recognized standards to improve disaster risk management in hotels that are located in hazard prone destinations should be developed to encourage best practice disaster risk management approaches.*

*The scoping study reflected many of the key findings of the literature review. The interviews showed that the opportunity to market good risk management practices directly to customers is limited (due to low ranking of risk in hotel and destination selection and reluctance by hotels to advertise their risks) but that there are market opportunities from a business-to-business perspective. European tour operators and corporate travel organizers are requesting information about, and auditing risk management in hotels. To support adoption, the Initiative should work to match the needs of tour operators with the needs and capacities of hotels.*

*As mentioned by the interviewees, the Hotel Resilient Initiative will need to support the design and implementation of those standards with localized content that reflects relevant legislation and risk profiles; capacity building, training and awareness raising; partnerships with tourism industry leaders, government authorities and tourism associations; and activities to address broader community hazards and vulnerabilities.*

*HACCP provides an effective example of how a standard can grow into legislation and forms an industry norm. If the Hotel Resilient Initiative chooses to proceed with a certification system in the future, academics and interviewees agree that much has to be done to ensure the industry and its customers to have trust in that process. Without this trust, any certification will lose its value.*

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