IMPORTANCE OF RISK MANAGEMENT FOR THE SUSTAINABILITY OF TOURISM

Turizmin Sürdürülebilirliği İçin Risk Yönetiminin Önemi

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Abstract: The world tourism industry suffered some severe losses as a result of a series of major international events and the magnitude of disaster risks has become a major topic of discussion for a sustainable tourism especially in the insurance industry. Most of the tourism destinations face a wide range of disasters and crises from a variety of hazards (natural, technological, biological, and civil/political). Risk management for sustainability of tourism refers to the planning and implementation of processes directed towards managing the adverse effects of disasters on tourism. The aim of this paper is to consider the key elements of disasters and their effects upon tourism destinations, and to provide background on risk management processes for sustainable tourism.

Key Words: Disasters, Risk Management, Sustainability of Tourism.

Özet: Dünya turizm sektörü bazı önemli uluslararası olayların neticesinde ciddi kayıplar yaşamış ve doğal afet risklerinin şiddeti özellikle sigorta sektörü açısından sürdürülebilir turizm tartışmalarının ana konusu haline gelmiştir. Birçok turizm merkezi çeşitli tehlikelerden (doğal, teknolojik, biyolojik ve toplumsal/politik) kaynaklı afetler ile yüz yüze gelmektedir. Sürdürülebilir turizm için risk yönetimi, doğal afetlerin turizm sektörüne yönelik olumsuz etkilerini giderebilmek üzere yapılacak planlama ve uygulama süreçlerini kapsamaktadır. Bu çalışmanın amacı, doğal afetlerin temel unsurlarını ve bunların turizm merkezleri üzerine etkilerini tartışmak, ayrıca sürdürülebilir turizm için risk yönetim sürecine bir alt yapı sağlamaktır.

Anahtar Sözcükler: Doğal Afetler, Risk Yönetimi, Turizmin Sürdürülebilirliği.

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INTRODUCTION

The influence of environmental conditions on global patterns of economic development is the subject of especially the 21th century, primarily because identifying these causal effects is challenging. Unlike relatively rare financial crises, political crises, and civil wars, disasters occur regularly/irregularly and repeatedly. The increasing incidence and intensity of natural disasters and climate change have a distinct impact on the environment and vice versa and must therefore be seen as an integrated whole.

Countries face a wide range of disasters and crises from natural, technological, biological and civil/political hazards. Even a hazard impact will not necessarily produce a disaster. If an earthquake were to occur in a distant and unpopulated area and cause no harm to people or damage to facilities, it would not be a disaster.

Risks in the environmental category include both natural disasters (tropical cyclones, tornadoes, hurricanes, typhoons, floods, frosts, droughts, landslides, earthquakes, tsunamis, volcanoes, lahar, erosion, epidemics, plagues) and man-made risks (industrial accidents, transport accidents, crime, terrorism, political conflict, structure failures, structure fire, contamination) (Granger 2000: 25; Swiss Re 2014: 45; World Economic Forum 2014: 12; Hsiang and Jina 2014). Earthquakes, tropical cyclones, and flooding account for approximately 90% of all disaster based economic losses (Banks 2005: 18). Disasters affect countries' tourism and growth in the long-run.

Disasters cannot be prevented with existing science and technology, but the losses they may inflict and the impact on individuals, industries and governments can be reduced with disaster risk management programs. Therefore, determining how to realize tourism disaster risk identification, evaluation, control and transfer with appropriate disaster risk management tools, and establishing a disaster risk and loss evaluation model unique to the tourism industry, are extremely important and urgent tasks (Tsai 2013: 932; Lynham at al.: 2012).

The purpose of this study is to consider the key elements of crises and disasters and their effects upon tourism destinations, and to emphasize the importance of risk management processes for sustainable tourism. The remainder of this paper proceeds as follows. In section 2 details the economics of disasters and sustainability of tourism. Section 3 treats insurance and the risk management framework in tourism industry. Section 4 describes the tourism risk management process and lastly, Section 5 contains some concluding remarks for further discussions.

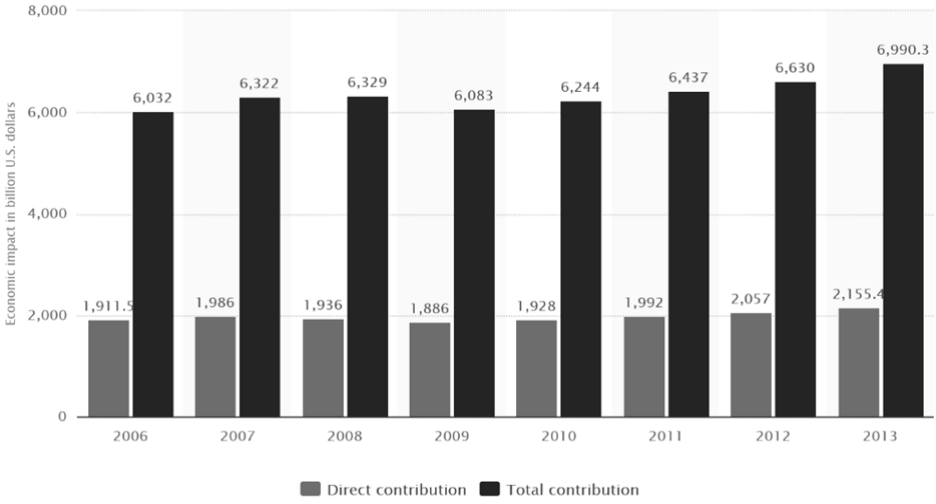
THE ECONOMICS OF DISASTERS AND SUSTAINABILITY OF TOURISM

During the 21th century, the losses from disasters have expanded dramatically in many developed and developing countries. The trend towards increasing losses is on the rise, making active risk management more essential than ever (Banks 2005: 13). Disasters are often labeled low-frequency (probability)/high-severity events.

The notion that natural disasters might have permanent long-run effects on income is not obvious, in part because these events elicit economic responses fundamentally different from man-made macroeconomic disasters (e.g. currency or banking crises). Skidmore and Toya (2002) argues that disasters may temporarily stimulate economies to grow faster because demand for goods and services increase as populations replace lost capital. Cuaresma, Hlouskova and Obersteiner (2008), and Hallegatte and Dumas (2009) argues that growth may suffer initially, since lives may be lost and productive capital destroyed. Yang (2008) argues that growth should suffer for a finite period, but that it should eventually rebound because the marginal product of capital will rise to abnormally high levels, causing income levels to converge back to their pre-disaster trend. Anttila-Hughes and Hsiang (2011) argues that disasters lead slow growth—but no rebound occurs because the various recovery mechanisms above fail to outweigh the direct negative effect of losing capital. According to this hypothesis, post-disaster output may continue to grow in the long run, but permanently lower than its pre-disaster trajectory.

According to the United Nations World Tourism Organization (UNWTO), over the past six decades, tourism has experienced continued growth and diversification to become one of the largest and fastest growing economic sectors in the world (WTTC 2010). The global travel and tourism industry -encompassing accommodation, transport, and catering, recreation and visitor services- generates several thousand billion U.S. dollars in revenue each year as seen on Figure 1. The statistic shows the direct and total economic impact of travel and tourism on the global economy from 2006 to 2013. In 2013, while the direct contribution of travel and tourism was 2,155 billion U.S. dollars, the total contribution was 6,990 billion U.S. dollar. The figures for total contribution also include indirect and induced contributions which includes accommodation services, food and beverage services, retail trade, transportation services and cultural, sports and recreational services.

Figure 1: Contribution of travel and tourism to the global economy (in US$bn)



Source: STATISTA 2014, June 10.

Table 1 provides a snapshot of the projected value of tourism to the world's economy from 2013 to 2024. The total direct and indirect economic contribution (percentage of total) of travel and tourism is estimated to rise from 9.5% (US$6,990bn) in 2013 to 10.3% (US$10,965bn) in 2024, and is expected to generate 265,855,000 jobs, 8.9% of total employment in 2013, rising to 346,901,000 jobs, 10.2% of total employment, over the same time period.

Table 1: Travel and tourism sector total contribution to GDP and employment

World	2013 USDbn[1]	2013 % of total	2014 Growth[2]	USDbn[1]	2024 % of total	Growth[3]
Direct contribution to GDP	2,155.4	2.9	4.3	3,379.3	3.1	4.2
Total contribution to GDP	6,990.3	9.5	4.3	10,965.1	10.3	4.2
Direct contribution to employment[4]	100,894	3.4	2.2	126,257	3.7	2.0
Total contribution to employment[4]	265,855	8.9	2.5	346,901	10.2	2.4
Visitor exports	1,295.9	5.4	4.8	2,052.4	5.2	4.2
Domestic spending	3,220.6	4.4	4.2	5,057.1	3.6	4.2
Leisure spending	3,412.8	2.2	4.3	5,451.2	2.4	4.4
Business spending	1,103.7	0.7	4.7	1,661.1	0.7	3.7
Capital investment	754.6	4.4	5.8	1,310.9	4.9	5.1

[1]2013 constant prices & exchange rates; [2]2014 real growth adjusted for inflation (%); [3]2014-2024 annualised real growth adjusted for inflation (%); [4]000 jobs

Source: WTTC, 2014: 7.

Tourism is one of the world's fastest growing industries and is a major source of income for many countries. Being a people-oriented industry, tourism also provides many jobs which have helped revitalize local economies. Many people seek more responsible holidays. These include various forms of alternative or sustainable tourism such as: 'nature-based tourism', 'ecotourism' and 'cultural tourism'. All tourism activities of whatever motivation –holidays, business travel, conferences, adventure travel and ecotourism– need to be sustainable (UNESCO 2014, September 20).

In 2013, there were 1.087 billion international tourist arrivals worldwide, with a growth of 5.0% as compared to 1.030 billion in 2012. Table 2 summarizes the top 10 international tourism destinations tourist arrivals in 2013 (UNWTO, 2014).

Table 2: Top 10 international tourism destinations tourist arrivals (2013)

Rank	Country	UNWTO Region	International tourist arrivals (2013)	International tourist arrivals (2012)	Change (2012 to 2013) (%)
1	France	Europe	84.7 million	83.0 million	2.0
2	United States	North America	69.8 million	66.7 million	4.7
3	Spain	Europe	60.7 million	57.5 million	5.6
4	China	Asia	55.7 million	57.7 million	-3.5
5	Italy	Europe	47.7 million	46.4 million	2.9
6	Turkey*	Europe	37.8 million	35.7 million	5.9
7	Germany	Europe	31.5 million	30.4 million	3.7
8	United Kingdom	Europe	31.2 million	29.3 million	6.4
9	Russia	Europe	28.4 million	25.7 million	10.2
10	Thailand	Asia	26.5 million	22.4 million	18.8

* Turkey is classified as part of Europe in the UNWTO tourism rankings geolocation scheme.

Source: UNWTO, 2014.

In 2013, there were 1.159 billion international tourism receipts worldwide, with a growth of 7.5% as compared to 1.078 billion in 2012. Table 3 summarizes the top 10 international tourism destinations receipts in 2013 (UNWTO, 2014):

Table 3: Top 10 international tourism destinations receipts (2013)

Rank	Country	UNWTO Region	International tourism receipts (2013) (US$bn)	International tourism receipts (2012) (US$bn)	Change (2012 to 2013) (%)
1	United States	North America	139.6	126.2	10.6
2	Spain	Europe	60.4	56.3	7.4
3	France	Europe	56.1	53.6	4.8
4	China	Asia	51.7	50.0	3.3
-	Macau, China	Asia	51.6	43.7	18.1
5	Italy	Europe	43.9	41.2	6.6
6	Thailand	Asia	42.1	33.8	24.4
7	Germany	Europe	41.2	38.1	8.1
8	United Kingdom	Europe	40.6	36.2	12.1
-	Hong Kong, China	Asia	38.9	33.1	17.7
9	Australia	Oceania	30.9	31.7	-2.8
10	Turkey	Europe	27.9	25.3	6.8

Source: UNWTO, 2014.

Since the 21st century, more than one million people have been killed and more than 2 billion others have been directly affected by natural disasters. While recognizing that improved rescue, evacuation, and disease control are crucial to reducing the effects of natural disasters (Guha-Sapir and Santos 2013). The world tourism industry suffered some severe losses as a result of a series of major international events. Outlined below is a brief overview of selected major events which have collectively influenced the performance of the tourism industry over the year 2000s. All this events triggered business and consumer uncertainty and falls in tourist arrivals:

- Terrorist attacks in the USA on September 9, 2001.
- SARS virus outbreaks on February 26, 2003.
- Indian Ocean Tsunami on December 26, 2004.
- Tropical Cyclones Hurricane Katrina on August 23, 2005.
- Sichuan Earthquake in China on May 12, 2008.
- Haiti Earthquake on January 12, 2010.
- Japan Earthquake and Tsunami on March 11, 2011.
- Typhoon Haiyan in Philippines on November 8, 2013.

Much of the tourism literature today appreciates the importance of developing tourism 'sustainably'. Whatever the precise meaning of sustainability has

an economic dimension alongside its social and environmental dimensions. Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities. Thus, sustainable tourism should (UNWTO, 2005: 11-12):

1) Make optimal use of environmental resources that generate a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.

2) Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.

3) Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Sustainable tourism development requires the informed participation of all relevant stakeholders. Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary. Sustainable tourism is the concept of visiting a place as a tourist and trying to make only a positive impact on the environment, society and economy. Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists.

INSURANCE AND THE RISK MANAGEMENT FRAMEWORK IN TOURISM INDUSTRY

Risk is define as the uncertainty surrounding the outcome of an event, is caused by external or internal vulnerabilities, and an integral and inevitable part of business (Banks 2005: 3). In recent years, the magnitude of disaster risks has become a major topic of discussion especially in the insurance industry. The tourism sector faces certain challenges, including those related to pricing difficulties, earnings and capital volatility, concentrations, limits of insurability, capacity constraints, and contagion effects. Disasters generally results in a large number of individual losses involving many insurance policies as summarized in Table 4.

Table 4: Natural disasters worldwide, 2003-2012[1] (2012 US$bn)

Disaster type	Number of events	Fatalities	Overall losses (US$bn)	Total Insured losses (US$bn)
Earthquake/tsunami	657	678,400	489	77.0
Tropical cyclone[2]	424	65,500	539	234.0
Severe thunderstorm[3]	2,375	6,310	206	126.0
Heatwave/drought	207	132,600[4]	118	22.0
Wildfire	524	1,270	27	11.0
Winter events[5]	401	13,000	101	44.0
River flood/flash flood[6]	2,458	54,600	274	48.0

[1] As of July 2013; [2] Includes flooding caused by hurricanes and other tropical cyclones. Includes U.S. National Flood Insurance Program losses; [3] Includes tornadoes; [4] Famine deaths not considered;

[5] Includes winter storms, winter damage, and blizzards; [6] Excludes flood damage losses caused by tropical cyclones and hurricanes.

Source: Insurance Information Institute 2014, October 07.

For tourism sector, the decision on whether to purchase the insurance coverage is part of the cost/benefit evaluation associated with the risk management decision process (Banks 2005: 72-74). Table 5 summarizes the ten most costly world insurance losses.

Table 5: The ten most costly world insurance losses, 1970-2013[1] (US$ millions)

Rank	Date	Country	Event	Insured loss in 2013 US$mn[2]
1	Aug. 25, 2005	U.S., Gulf of Mexico, Bahamas, North Atlantic	Hurricane Katrina; storm surge, levee failure, damage to oil rigs	80,373
2	Mar. 11, 2011	Japan	Earthquake (Mw 9.0) triggers tsunami: aftershocks	37,665
3	Oct. 24, 2012	U.S., et al.	Hurricane Sandy, storm surge	36,890
4	Aug. 23, 1992	U.S., Bahamas	Hurricane Andrew: floods	27,594
5	Sep. 11, 2001	U.S.	Terror attacks on WTC, Pentagon and other buildings	25,664
6	Jan. 17, 1994	U.S.	Northridge earthquake (Mw 6.6)	22,857
7	Sep. 6, 2008	U.S., Caribbean: Gulf of Mexico et al.	Hurricane Ike; floods, offshore damage	22,751
8	Sep. 2, 2004	U.S., Caribbean; Barbados et al.	Hurricane Ivan; damage to oil rigs	17,218
9	Jul. 27, 2011	Thailand	Floods caused by heavy monsoon rains	16,519
10	Feb. 22, 2011	New Zealand	Earthquake (Mw 6.3), aftershocks	16,142

[1] Property and business interruption losses, excludes life and liability losses. Includes flood losses in the United States insured via the National Flood Insurance Program; [2] Adjusted to 2013 dollars by Swiss Re.

Source: Insurance Information Institute 2014, October 07.

The set of risks and their definitions have been continually revised over the years. Environmental risks have become more prominent since 2011, while health-related risks (pandemics and chronic disease) have become less so. Descending sort of environmental risks are extreme weather events, climate change, water crises, natural disasters, biodiversity loss and ecosystem and man-made environmental disasters (World Economic Forum 2014: 16).

The risk management discipline has become well established in the business world over the past few decades. Many travel and tourism companies are now accustomed to dealing with the high frequency/low severity financial and operating risks that impact their operations. The same type of risk management framework is applicable to disaster risks. In fact, insurance is one of the most efficient and resilient mechanisms available for dealing with low frequency/high severity risks (disasters). But insurance alone is not a sufficient solution. Accordingly, alternative solutions must be factored into the process, including ex ante measures such as loss control/mitigation, and ex post loss financing via reinsurance, capital markets instruments, and public funding. Only when combined is an economy likely to be able to withstand the onset of one or more large disasters (Banks 2005: 13-15).

The risk management (the organizational process) and disaster risk management (the multi-agency, community-based process) in the tourism context refers to the planning and implementation of processes directed towards managing the adverse effects of crises and disasters on tourism destinations (Robertson, Kean and Moore 2006: 16). The tourism industry should be involved in both risk management and disaster risk management processes to identify, analyze, evaluate, treat, monitor and review risks to the tourism destinations.

A tourism organization/company manages its risks for three primary reasons: to maximize the value of the company, ensure sufficient liquidity, and solvency. In order to attempt these primary reasons the company must create a risk management program that centers on one or more of three broad strategies: loss control, loss financing, and risk reduction (Banks 2005: 74-80):

i. *Loss control*; also known as risk mitigation, is typically based on rules, regulations, education, and safety measures, and can be divided into two general categories: avoidance and resistance. Avoidance reduces the financial impact of a hazard by prohibiting expansion in at-risk areas (e.g., no development or construction in certain zones). Resistance, in contrast, tries to reduce the effects of

a hazard through safety precautions in at-risk areas (e.g., minimum strength and reinforcement standards for particular buildings).

ii. *Loss financing*; centers on risk prevention and transfer. Loss financing includes insurance, disaster/catastrophe bonds**, derivatives and hedging. Hedging is a risk management strategy without buying insurance policies. A tourism company that is exposed to risk of loss from disaster risk (e.g., windstorm) can purchase a hedge that provides a payment if a windstorm occurs and creates damage at the tourism facility.

iii. *Risk reduction*; a third general risk management strategy available to institutions managing exposures, can be split into two components, withdrawal and diversification. Withdrawal refers to the partial or complete abandonment of a business, activity, or location that gives rise to a particular risk exposure. If the tourism facilities are located on an active fault line, it can eliminate the threat of loss from earthquake by closing down the facility and relocating it to another area. The second form of risk reduction relates to diversification, which should achieved by cross-sectoral integration.

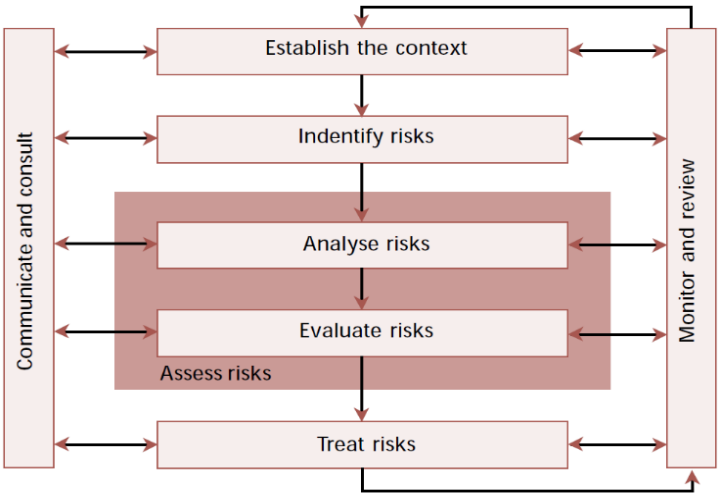
Over the past decade, risk management has assumed a much more important role in many firms across different sectors. The risk analysis and management process is broadly the same across most firms (Kunreuther, Michel-Kerjan and Useem 2013: 7-8).

THE TOURISM RISK MANAGEMENT PROCESS

Here, the generic risk management process has been adapted to be specific to the needs and context of tourism. The process has been developed for destinations, but the same principles also apply to a tourism business or organization undertaking a risk management process. The following Figure 2 provides an overview of the risk management process which is based upon two enabling activities (communicate and consult, and monitor and review), and five major activities: establish the context, identify risks, analyze risks, evaluate risks and treat risks. (Robertson, Kean and Moore 2006: 24).

** Catastrophe (CAT) Bonds; are event-linked bonds, which trigger payments on the occurrence of a specified event. If the defined catastrophic event occurs, the bond issuer pay claims, and part or all of the interest and principal payments are forgiven. If the defined catastrophic event does not occur, the investors receive their principal plus interest equal to the risk-free rate (e.g., LIBOR), plus a spread above LIBOR. The typical average maturity of CAT bonds is 3 years (Cummins and Mahul 2009: 53).

Figure 2: Risk Management Process



Source: Granger, 2000: 20.

Communication and consultation are enabling activities which are fundamental to risk management, and they must be undertaken at each step in the process. Adequate and appropriate communication and consultation will ensure that stakeholders have a sense of the tourism risk management process. It is essential to document all meetings and discussions with stakeholders. Stakeholders in the tourism destination context include: politicians; emergency services; tourism organizations and representatives; experts/technical advisors; government officials; airport and port operators; utilities operators (gas, electricity, water, etc.); interest groups; and media.

Monitoring and reviewing are enabling activities which are essential so that continual improvements can be achieved and to ensure the currency and relevance of the tourism risk management process. Tourism risk management is an ongoing process with regular monitoring and review of hazards, elements at risk, and the progress, outcomes and efficacy of risk treatment measures. Despite the ineluctability of disasters and crises, the tourism industry can minimize disruption and facilitate the return to normal operations with the application of efficient disaster risk management strategies.

UNWTO identifies risks to the safety and security of visitors, host communities and tourism employees from four sources (Robertson, Kean and Moore 2006: 19-20):

1. Source: The Human and Institutional Environment

These risks exist when visitors fall victim to:

- common delinquency (theft, pickpocketing, assault, burglary, fraud, deception);
- indiscriminate and targeted violence (such as rape) and harassment;
- organized crime (extortion, the slave trade, coercion);
- terrorism and unlawful interference (attacks against state institutions), hijacking and hostage taking;
- wars, social conflicts and political and religious unrest; and
- a lack of public and institutional protection services.

2. Source: Tourism and Related Sectors

Tourism and related sectors such as transport, accommodation, can endanger visitors' personal security, physical integrity and economic interests through:

- poor safety standards in tourism establishments (fire, construction errors, lack of anti-seismic protection);
- poor sanitation and disrespect for environmental sustainability;
- the absence of protection against unlawful interference, crime and delinquency at tourism facilities;
- fraud in commercial transactions;
- non-compliance with contracts; and
- industrial disputes by staff.

3. Source: Individual Travelers

Travelers or visitors can endanger their own safety and security, and those of their hosts by:

- practicing dangerous sports and leisure activities, dangerous driving, and consuming unsafe food and drink;
- travelling when in poor health, which deteriorates during the trip;
- causing conflict and friction with local residents through inadequate behavior towards the local communities or by breaking local laws;

- carrying out illicit or criminal activities (e.g., trafficking in illicit drugs);
- visiting dangerous areas; and
- losing personal effects, documents, money, etc., through carelessness.

4. Source: Physical and Environmental Risks

Physical and environmental damage can occur if travelers:

- are unaware of the natural characteristics of the destination, in particular its flora and fauna;
- have not undertaken adequate medical preparations for the trip (vaccinations, prophylaxis);
- do not take the necessary precautions when consuming food or drink or in their personal hygiene; and
- are exposed to dangerous situations arising from the physical environment.

Tourism destinations should consider for mainstreaming risk reduction in post-disaster recovery including the use of hazard scenarios to anticipate long term recovery issues. The desired result is a tourism destination that delivers on its promise consistently and has an established reputation for protecting its residents, businesses, and visitors against the effects of natural hazards.

CONCLUSION

Tourism destinations in every corner of the globe experience a disaster of one form or another at some point in their history. The world tourism industry suffered some severe losses as a result of a series of major international events which were triggered business and consumer uncertainty and falls in tourist arrivals. Many travel and tourism companies are now accustomed to dealing with the high frequency/low severity financial and operating risks, and also with the low frequency/high severity catastrophic risks that impact their operations.

Insurance and alternative solutions including ex ante measures such as loss control/mitigation, and ex post loss financing via reinsurance, capital markets instruments, and public funding must be factored into the risk management process. Only when combined is an economy likely to be able to withstand the onset of one or more large disasters. Risk management in the tourism context

refers to the planning and implementation of processes directed towards managing the adverse effects of crises and disasters/catastrophes on tourism. Despite this, few tourism destinations have properly developed disaster risk management plans in place to help them cope with such eventualities.

The sustainability of a tourism destination is significantly influenced by its ability to adapt to changing market conditions, use resources efficiently and deliver innovative planning and development strategies. Sustainable tourism holds a long-term view; ethically, socially and culturally adapted, ecologically viable and economically sensible and productive requirements. Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary. Indicators are variables that help achieve the monitoring needed to assess progress toward sustainability. Selection of international and local indicators must meet not only important technical criteria but policy relevant criteria as well. "Think globally, act locally" is a simple idea or formula which helps to achieve sustainable development in tourism.

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