

Crisis Management at Taman Negara National Park, Kuala Tahan, Pahang, Malaysia

Hayati Mohd Dahan, Noryati Ahmad and Catherine S F Ho

Abstract—The risks inherent to the tourism industry are significant and the ecotourism sector is no exception. Ecotourism is a fast growing industry that stimulates economic growth and advancement in many developing and less developed countries. However, there is a lack of standards in place to evaluate its ability to manage crisis situation. Effort in managing risks and crises should not be sidelined as it is a critical determinant of all business survival. Crisis management techniques improve organizations' ability to identify, analyze, control, finance and manage a broad spectrum of risk and crisis, whilst at the same time fulfilling its social obligation, and ensure resilience and survival of businesses. It also provides an organization with a systematic, orderly response to crisis situations. Finding from this study reveals that Taman Negara's effort in managing crisis is still fragmented. Most of the service providers are not well informed of the basic emergency procedures. Structured questionnaires and semi structured interviews with focus groups are conducted to solicit information pertaining to service providers' knowledge and capability to manage emergency situation that can escalate into a crisis.

Index Terms—Risk, Crisis, Crisis Management.

I. INTRODUCTION

This research aims to examine the strategic preparedness for crisis of all service providers in Taman Negara in managing emergency/crisis situation in order to underline the future needs of the national park as the choice tourist destination for fun and adventure without compromising on safety and security whilst being eco-friendly. Previous studies have focused on different aspects of sustainable ecotourism but not much is done to look into more important aspects other than economic benefits, particularly the social aspect, specifically, tourists' well being, security and safety whilst engaging in nature activities. Taman Negara must formulate its own definition of crises by studying its own environment for potential hazards and assessing events that has direct relationship to the accomplishment of its goal. It is also vital to have a platform for the implementation of structures, systems, rules and regulations within an organization; to coordinate and synchronize all efforts with the official government response team to mitigate effects of crises and disasters.

Corresponding author. Tel. :(+6012-2195177); fax : (+603-55444695)
(e-mail address : hayati702@salam.uitm.edu.my).

II. LITERATURE REVIEW

Ecotourism, a component of sustainable tourism, has caught the attention of many professionals and community leaders throughout the world. Although it is difficult to look for silver linings in the light of the overwhelming tragedy worldwide in tourism industry, there have been some rays of hope and tremendous stories of human endeavour. According to Parks (2009), trends are shifting from mass tourism to smaller groups and participative authentic tourism. These trends are emerging as a result of changing consumer preferences for vacations.

Similar to other business activities, ecotourism industry has to generate revenue to financially sustain whilst providing unique experience and attractions to compete in this blooming industry (Weaver, 2008). Business scholars and practitioners alike have argued that crises are inevitable (Perrow, 1994). Mitroff and Alpaslan (2003) argue that "thinking about tragedies or the unthinkable ought to be a part of a larger, ongoing systematic effort of strategic thinking". With rampant incidences of crises and disasters worldwide, it is not a question of "if it happens"; it is a question of "when will it happen?"

A significant principle underlying this research is that crisis management is possible. Too often, planning can be a mechanical activity, constrained by an artificial set of assumptions, and the lack of thoughtful assessment of alternatives, contingencies, and outcomes. An organization may therefore be over planned but under prepared (Dahan, 2005; Mitroff, Pauchant & Shrivastava, 1988). Another significant premise underlying this research is that effective crisis management requires different planning, procedures, systems, resources, and activities than routine, day to day management. Since both crisis prevention and preparedness are important, this study focuses on Taman Negara's crisis management ability through advance preparation.

The establishment of Taman Negara was initially to nurture and conserve the fauna and flora that are of interest to geologist, archaeologist, historian, ethnology and others. Taman Negara sits on a large area of 4,343 km² in the middle of peninsula Malaysia. It functions as protection of wild life, conservation of nature, conservation of the ecology system as well as recreation and ecotourism activities. The Park Authority ensures that the place is safe and secure for tourists, whilst protecting nature. It also educates the public on wild life, fauna and flora, whilst encouraging research activities. Activities for tourists include: mountain climbing, jungle tracking, canopy walk, cave exploration, water activities, camping, nature watching, fishing and other outdoor

activities. According to Parker (2001), “ecotourism is an activity carried on within a set of social and physical conditions that are heavily influenced by government decision making”. Variables that will impact ecotourism industry include external environment, safety and security as well as politics.

This study investigates the crisis preparedness of Taman Negara service operators and provides suggestions to improve its preparedness. Based on the Protection Motivation Theory (Madux and Rogers, 1983), organizations that feel threatened will respond with an adaptive behaviour and vice versa. In summary, this research aims to (a) identify the most vulnerable risk/crisis to Taman Negara, (b) assess the extent of preparedness of Taman Negara service providers in managing crisis, (c) determine the weakest dimension of crisis preparedness that inhibits the national park’s preparedness ability (d) relate perceived risk and loss experience to the extent of crisis preparedness of Taman Negara and (e) suggest recommendations to increase crisis preparedness.

III. RESEARCH METHODOLOGY

This is a cross-sectional, descriptive field study with data collected from service providers in Taman Negara. A survey was carried out in Taman Negara, Malaysia from May 2007 to January 2008. An extensive questionnaire was prepared to solicit information pertaining to the service providers’ knowledge and capability to manage emergency situation that can escalate into a crisis. Semi structured interviews with focus group were also conducted to enhance the understanding of current preparedness in terms of its strength and weaknesses, opportunities and threats. To ensure

TABLE 1: PROFILE OF RESPONDENTS

Age group	%	Yrs of working experience	%	Occupation	%
Below 21yrs	5%	1-5yrs	34	Boat operator	29.3
21-30yrs	36.5%	6-10yrs	26.3	Hotel operator	18.5
31-50yrs	49%	11-15yrs	15.4	Food operator	15.9
Above 51	8.3%	16-20yrs	18.6	Park Authority	4.5
Missing	1.2%	Above 20yrs	5.7%	Others	31.8

B. Chance of Loss/Risk/Crisis

On a scale of 1 (no chance) to 5 (great chance), respondents’ perception of susceptibility to potential losses are generally low. Apparently the mean score for the chance of a flood is 3.85, followed by storm (2.96) and landslide (2.74) respectively (Refer to Table 2). This indicates false denial of vulnerability to crises since incidences of flood, landslide, loss in jungle and other incidences have been reported in the past.

representativeness of the population, this study sample employees from all five categories of service providers: Taman Negara Park Authority, food outlet operators, hotel and lodging operators, boat operators and tour guides. Multi-method data collection is carried out with the intention to obtain more accurate responses on issues that were not addressed in the questionnaires.

IV. RESEARCH FINDINGS

An overview of the results shows that Taman Negara service providers are generally unaware of any formal structure or system to handle crisis situation. Such lack of awareness may lead to inability to respond immediately which is critical in successful crisis management. Basically, crisis management effort is still fragmented. As such the understanding of basic emergency/crisis management is found rather mixed amongst the service operators, particularly the boat operators, food operators, hotel operators, tour guides and employees of Taman Negara Park Authority. Many do not heed the need for crisis preparedness due to isolated incidences that are by far under control. Successes in previous incidences have given them a false sense of preparedness and may lead to greater vulnerability if an emergency situation is taken by surprise. The results are discussed in greater detail in the next section.

A. Profile of Respondents

The spread of respondents based on age group, occupation and years of working experience are tabulated in Table 1. Respondents also include retired service providers.

TABLE 2: CHANCE OF HAPPENING

Potential Risk	Mean	Standard Deviation
Flood	3.85	1.276
Storm	2.96	1.100
Landslide	2.74	1.185
Haze	2.72	1.154
Loss in jungle	2.68	1.122

With the exception of flood, respondents consider these potential risks as unlikely incidences. Other potential losses that are perceived as highly unlikely by respondents include

rock felling, fire, explosion, boat capsize, misadventure, attack by wild animals etc. These potential losses score mean value of below 2.6. Denying vulnerability to loss is the first sign of vulnerability to crisis (Mitroff & Anagnos, 2001). This does not reinforce the need for crisis preparedness. Except for flood, service providers generally denied having emergency experience during their tenure with Taman Negara. Denial is again a technique to create a feeling of ability to control the situation when a loss or emergency arises. If all emergency situations are considered rare happenings or isolated incidences, then there are no lessons learnt from past incidences. This will lead to accumulation of errors as a result of refusal to learn from mistakes, and underestimate risk and vulnerability to crisis. This will also lead to ignoring warnings brought about by tragedies leading to vulnerability to crises. If businesses do not perceive vulnerability to crisis, than naturally they may not allocate resources to prepare for crisis potentials. Potential risks are not perceived as a threat to their business, since so far, there are no serious unpleasant happening. Success in managing previous incidences exacerbates belief of ability in managing future losses. The same findings have been reported in other studies conducted by Shrivastava (1992) and Shaluf, Ahmadun, Said, Mustapha and Shariff (2002). This reactive mindset may take several years of accumulated errors to

change. This will lead to a crisis prone culture that may change only when a catastrophe has taken place.

C. Crisis Preparedness Mechanism

With regards to Taman Negara's ability to manage crisis situation, this study attempts to measure the extent of crisis preparedness based on four (4) different preparedness mechanism: signal detection, prevention, crisis control and recovery mechanism. Based on a score of 1 (unprepared) to 5 (highly prepared), service providers generally believe they are moderately prepared to manage crisis situation. However, a closer look at the 'low' range in mean score, it is found that signal detection scored lowest (3.25) followed by prevention, recovery and crisis control mechanism (see Table 3). Similar to other businesses, Taman Negara lacks investment in signal detection mechanism. In fact, this is the first line of defence in order to prevent a loss from escalating into a crisis (refer to Section 4.4). For instance, a low score on the practice of recording statistics of past losses/events will not allow lessons learnt or the ability to prevent future happenings. Review of the responses conducted in the focus group and personal interviews provide a clearer picture of respondents' preparedness ability (refer to Sections 4.5 and 4.6).

TABLE 3: MEAN SCORE OF CRISIS PREPAREDNESS MECHANISM

Crisis Preparedness Mechanism	Range in mean score	
	Low	High
Signal Detection mechanism (5 items)	3.25	3.59
Prevention Mechanism (25 items)	3.32	4.58
Crisis Control Mechanism (3 items)	3.70	3.73
Recovery Mechanism (3 items)	3.37	4.11

D. Relationship between Perceived Risk, Loss Experience and Extent of Crisis Preparedness

As depicted in Table 4, Signal Detection Mechanism (SDM) is the only variable that is significantly related to perceived risk and loss experience. As such, it can safely be

assumed that SDM may be the best indicator of crisis preparedness which concurs with findings by researchers like Mitroff and Alpaslan (2003).

TABLE 4: RELATIONSHIP BETWEEN INDEPENDENT AND DEPENDENT VARIABLES

Crisis Preparedness Mechanism	Perceived Risk	Loss Experience
Signal Detection Mechanism	.213*	.191*
Prevention	.084	.10
Containment	.151	.135
Recovery	.135	.124

E. Interviews

The boat operators are never included in any safety training or rescue operation. All emergency situations have so far been dealt with successfully through communication and cooperation amongst boat operators. They have never observed any emergency manual or listing of emergency contact numbers on the boats. This is unfortunate because being one of largest group of service providers in Taman Negara, boat operators are the biggest potential resources and the first line of response in emergency situation. Boat operators should be given training for not only water related incidences but all potential emergency situations. The ability to respond and recover from emergency and crisis situation requires systemic responses that demand the cooperation of all stakeholders. Hotel operators did not report any fatalities

except unpleasant happenings such as food poisoning, boat capsized and flood.

It is also reported that even though registration of tourists by Park Authority is compulsory, enforcement is lacking and many tourists get by without registering. This is not favourable as far as keeping tab of the number of tourists engaging in ecotourism activities. In case of missing persons, quick response is not possible if misadventures go unnoticed. The absence of a monitoring mechanism to account for tourists getting in and out of Taman Negara may result in obvious security problem such as illegal refuge from neighbouring countries or acts of terrorism. Another relevant opinion is their concerned for tourists safety whilst engaging in jungle tracking. Respondents do agree that rescue operation by government rescue agencies is efficient. Flood alarm has also been installed to provide early warning of

flood but boat operators have complained of false alarm.

Pearson and Clair (1998) and Mat Said, Fakhru'l-Razi and Daud (2001) asserted that attitude towards risk as opposed to awareness to risk is important. There may be same awareness of risks throughout the organization but by having completely different attitude would result in different approaches to managing risk and crisis. It is impossible to manage risk and crisis if businesses deny their vulnerability to risks and crises as this will naturally lead to a false sense of crisis preparedness.

F. Focus Group Discussion

Focus group discussion among employees of Park Authority reports that rapport with other service providers and government rescue agencies have always been good. However there is no formal crisis team, but teams are formed on an "ad-hoc" basis. To add to that, there is no written crisis manual but many issues are communicated through memo and letters. Most emergency situations were overcome through cooperation among service providers and rescue teams. It is also reported that all accidents and near misses are recorded but respondents are unaware where the information are stored. To the best of their knowledge, there is no designated crisis operation centre and so far no event that tarnished the image of Taman Negara as an ecotourism destination. All emergency situations were well handled and did not escalate into crises. Respondents agree that meetings are held to discuss lessons learnt from past incidences however no formal report is prepared. There is no dedicated fund/budget allocated to champion crisis management activities.

V. CONCLUSION

In summary, Taman Negara Park Authority has to reassess its vulnerability. There is a need to mainstream crisis management programme (CMP) into all eco-tourism related activities and attractions as well as any newly developed projects or developments. Specifically, the following are suggested:

- 1) Identify loss exposures, assess vulnerability and compile records of all loss experiences and near misses.
- 2) Monitor and evaluate procedures for CMP initiatives, this need to be conceptualized into all eco-tourism activities and all new project or development.
- 3) Implement, review or revive structures and systems to support crisis management.
- 4) Strategies for information sharing and networks for CMP and other related activities need to be strengthened at the organizational level as well as filtering down to all service operators and the communities. It must build capacity for CMP coordination purposes.
- 5) Taman Negara Park Authority must generate own funds and create budget to supplement available funds to implement CMP programs.

It is very important that all relevant stakeholders be a part of the crisis management team. More specifically, all boat operators, tour guides, food providers, Park Authority, rescue teams, hospital, neighbouring residence and other relevant stakeholders must be a part of the crisis plan and strategy.

REFERENCES

- [1] Dahan, H. (2005). Factors Determining Organizational Crisis Preparedness. An Unpublished Doctoral Dissertation, University Sains Malaysia.
- [2] Maddux, J.E., Rogers, R.W. (1983). Protection Motivation and Self Efficacy: A Revised Theory of Fear Appeals and Attitude Change. *Journal of Experimental Social Psychology*, 19, 469-479.
- [3] Mat Said, A., Fakhru'l-Razi, A. & Daud, M. (2001). Evolution of Emergency Management in Malaysia. *Journal of Emergency Management and Crisis Management*, 9, 46-53.
- [4] Mitroff, I. I., Pauchant, T. & Shrivastava, P. (1988). Conceptual and Empirical Issues in the Development of a General Theory of Crisis Management. *Technological Forecasting and Social Change*, 33, 83-107.
- [5] Mitroff, I.I. & Alpaslan, M.C. (2003). Preparing for Evil. *Harvard Business Review*, April, 109-115.
- [6] Parks, T.H. (2009). The Development of a Framework for Studying Ecotourism. *International Journal of Management*, Vol 26, 89-99.
- [7] Parker, S (2001). The Place of Ecotourism in Public Policy and Planning in DB Weaver (ed), *Encyclopedia of ecotourism*, CABI, Wallingford, UK, 509-20.
- [8] Pearson, C.M. & Clair, J.A. (1998). Reframing Crisis Management. *Academy of Management Review*, 23, 59-76.
- [9] Perrow, C. (1994). The Limits of Safety: The Enhancement of a Theory of Accidents. *Journal of Contingencies and Crisis Management*, 2, 212-220.
- [10] Shaluf, I M., Ahmadun, F., Said, A. M., Mustapha, S. & Sharif, S. (2002). Bright Sparklers and Explosions: The Lessons Learned. *Disaster Prevention and Management*, 11, 214-221.
- [11] Shrivastava, P. (1992). *Bhopal, Anatomy of a Crisis*: Paul Chapman Publishing London.
- [12] Weaver, D. (2008). *Ecotourism*. John & Wiley and Sons, Australia Ltd.