

## ORIGINAL ARTICLE

### Flood Disaster, Impacts and the Tourism Providers' Responses: The Kota Tinggi Experience

**J. Hamzah, A. Habibah, A. Buang, K. Jusoff, M.E. Toriman, M.J. Mohd Fuad, A.C. Er & A.M. Azima**

*School of Social, Development and Environmental Studies Faculty of Social Sciences and Humanities  
Universiti Kebangsaan Malaysia 43600 Bangi*

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#### ABSTRACT

Flood, like any other natural disasters can cause extreme and diverse impacts on tourism industry. However, flood impacts on tourism in Malaysia are hardly discussed, leaving the lack of preparedness and adaptations from the tourism providers. This article aims to comprehend the impacts of December 2006 and January 2007 flood on tourism industry, especially on how the tourism providers of Kota Tinggi faced such disaster. This study utilized both secondary and primary data especially in-depth interviews conducted in September 2007. The findings showed that the catastrophic flood had affected the tourism industry, especially in terms of decline of tourists' influx, loss of hotel revenue and occupancy, drop in retails of city economy, and destroy the nature, cultural and heritage attractions. Hence, it is imperative to develop a tourism contingency plan that can ensure alternatives of adaptive measure are available during the post and recovery period of the flood event.

**Key words:** Flood, Tourism impact, touristic assets, contingency plan, crisis management, climate change.

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#### Introduction

Tourism has long been recognised as an impetus in bringing business opportunities, ranging from a small scale to a large scale business venture as well as from nature based attractions to cultural based tourism attraction (Denicolai *et al.* 2010, Hamilton *et al.* 2005, Ritchie 2004). As an industry, many factors determine the influx of tourist arrivals, not only confined to offerings of attractive man made products but also with the natural environment, including good weather and unique climate features (Berrittella *et al.* 2006, Prett 2010, Eugenio-Martin & Campos-Soria 2010). Nevertheless, tourism is vulnerable to climate, natural disasters and hazards (Barton 1994, Drabek 1995, Ritchie 2004, Scott & Lemieux 2010, Hall 2010).

More pertinent, the global tourism in recent years had experienced many unusual crises, hazards and disasters (Ritchie 2004, Faulkner 2001, Hall 2010, Pyett 2011), including severe or extreme flood. Those nature disasters can cause different impacts on tourists as well as the local community. Several authors claim that natural disaster cause tourism destinations to lose its nature, economy and cultural assets, not only for temporary and a long term (Faulkner & Vikulov 2001, Md Ariffin 2006) but also at various scale and level of disasters (Ritchie 2004, Henderson 1999). As for the tourists, disaster can add to the stress, discomfort and unsecure, resulting them to avoid the affected destinations (Chongfu Huang & Hiroshi 2007, Nicholis 2004, Coombes & Jones 2010).

The Queensland flood in January 2011, the southeast Thailand flood in December 2010 and the current flood in Thailand in 2011 have caused million of losses in economy, livelihood and nature (The Watcher 2011, Thailand 2011). Being one of the tropical destinations, Malaysia had also experienced a series of severe flood since 1920s and one of devastating flood events was the December 2006 and January 2007 flood. While the above scenario of flood events provides various experiences for the rescue and recovery mechanism (Barton 1994, Drabek 1995, Ciccio & Ewen 2007, Tompkins *et al.* 2008), research on floods and its impact on tourism and how the tourism providers respond to that circumstances and undertake concerted efforts to ensure sustainability of their businesses is limited or rather an impromptu basis (Henderson 1999, Chan & Parker 1996). Malaysia is no exception in the case of hazard and disaster studies. Based on the existing literatures on flood, nevertheless, topics are restricted to the understanding of natural mechanism, mitigation, evacuation, health and psychological impacts and the overall economy impact (Shafie 2007, Badi'ah 2010, Arbaiah 2007).

In this context, it is crucial for the tourism industry to reminisce and take into account the past tragic experiences in managing the natural hazards to ensure business sustainability. Moreover, such research acts an essential foundation or basis for assisting the tourism industry and relevant government agencies to learn from past, and provides more insights on the components and mechanism that needs to be developed as the coping mechanism on similar events in the future (Faulkner 2001, Faulkner & Vikulov 2001, Scott, Jones & Konopek 2007, Ritchie 2004).

On the other hand, there is a growing concern in natural disaster and its impact on tourism as well as recovery measures by the tourism business entities (Chung-Hung & Cheng-Wu 2011, Hall 2010). Several authors assert on the fundamental of the three stages of disaster assessment comprising before the event occurs, during the occurrences of event and post flood event (Momani 2010). In fact, how they had overcome problems relating to tourism can be classified into remedies involving the individual business entity, within the community of business entity, collaboration of stakeholders especially with the government and other economic sector. The Victoria's initiatives in helping small business in tourism showed varied in incentives, including clean up and restoration grants, income recovery subsidy, tourism marketing and business advices (Victoria Government 2011). Moreover, with the increasing inter-connectedness of modern industry in spatial areas, undertaking study of losses in flood-affected areas at a locality and a broader region is therefore crucial. Researches from Thames Valley and North West region show various levels of tangible and intangible as well as primary and secondary impacts of floods on businesses in the locality as well as in broader region.

Against the above backdrops and more importantly of frequent flood disaster occurrences due to the global climate change in recent years, more study should be conducted in understanding its impacts on the tourism industry as it will help reduce the losses incurred by the tourism providers. Whilst the existing flood studies in Johor put more attentions on the understanding of the hydrological, health impact, displacement people and psychological effect as well as general impact on economy (Samaile 2007, Shafie 2007, Badriah 2010), little has been done to uncover its impact on tourism. Therefore, this article aims to apprehend the impacts of flood catastrophe towards tourism industry in Johor, especially towards identifying the tourism providers' respond during and post-flood event with special attempts to the district of Kota Tinggi during the December 2006 and January flood disaster.

## Materials And Methods

### *The Kota Tinggi Flood: December 2006 And January 2007:*

The Kota Tinggi flood is one of the massive floods in the Malaysian flood disaster. Stricking in four states in Peninsular Malaysia, Johor, Melaka, Negeri Sembilan and Pahang, the flood episode began when the Northeast Monsoon had brought heavy rain through series of continuous extreme storms, causing devastating flood to Kota Tinggi, Johor (Ministry of Natural Resources and Environment 2007b). The floods struck in two consequential waves, the December 2006 and January 2007 respectively. Both waves were unusual floods as the 2006 average rainfall return period was 50-years while the later had more than 100-years of return period (Shafie 2007, Badrul Hisham *et al.* 2010). The first wave struck for 13 days from 19 – 31 December 2006 and the second wave struck back for another week from 12 – 17 January 2007. It had cause a devastating flood with the highest level recorded reached 2.75m pass the danger level, making it the highest level ever recorded since 1950 and a declared of emergency curfew. The disaster had resulted more than 100,000 people evacuated and death toll of 18 people (Ministry of Natural Resources & Environment 2007a). The estimated total cost of this disaster was RM 1.5 billion, considered as the most costly flood events in Malaysian history.

### *Description of Study Area:*

Kota Tinggi, located in south East Coast of Peninsular Malaysia is the largest district in Johor. The district of Kota Tinggi is renowned for its historical attractions and valuable artifact remains, especially from the era of Malacca Malay, Johor-Riau, Singapore and Linggi. Several tourism attraction are as follows:

- i) Desaru: A destination for beach tourism, located at about 88km to the east of Johor Bahru. It is also a popular tourism destination among Singapore tourists especially during the weekend.
- ii) Historical tombs; the Tomb of Laksamana Bentan and the Tomb of Sultan Mahmud are the famous spot for those seeking historical attraction.
- iii) Waterfall attraction, located at about 16 km from Kota Tinggi, is always a preferred destination for both local and international tourists, especially during weekend, public holiday or school holiday.
- iv) Firefly is an eco-tourism hot spot offered in Kota Tinggi, especially along Johor River.
- v) Kota Tinggi Museum, built in 1997, portrays history of Johor Sultanate. Kota Tinggi has its historical importance as a centre for Old Johor Sultanate. Among the major displays is the glorious history of Johor River, starting from the reign of Sultan Allauddin Riayat Shah II until Sultan Mahmud Shah II.

With the above unique attractions, Kota Tinggi has no doubts of having a pool of nature and man-made attractions to offer the local and regional tourists' demand, thus, providing a strong basis for business diversification among tourism providers.

#### *Data Collection:*

This study had been conducted in two stages field research in 2007. This study utilised two sources of data. Phase one of the study was conducted after the flood receded that was in February 2007. During the first visit, most of the data collected were indepth interviews with the tourism providers. Also, secondary data was collected from the the Local Authority. The second stage of the study was conducted in September 2007.

### **Results And Discussion**

This section delineates the results of the study, part one concentrates on the impacts on tourism industry and part two focuses on the tourism providers' responses with regards to their sustainability of tourism businesses.

#### *Impacts on Tourism:*

##### *Decline in Tourist Arrivals and Cancellation of Tours:*

One central concern among the tourism business was the decline in the market segment due to external factor including disaster. From the data gathered during field visit, tourist arrivals during and after the disaster in Kota Tinggi had shown an extreme decline, dropped almost 90% from usual tourist arrivals. Although the end of December and the beginning of the year were the 'peak season' of tourist arrivals in Johor generally, and Kota Tinggi particular, collapse in the transportation and public services due to the catastrophic flood had caused major disturbance to the various business entities in tourism.

The flood had also affected the businesses of the tourist agencies in both Kota Tinggi and those operating in Johor Bahru. The cancellation of tourist visits has brought negative impacts not only to the travel agency, but also to the resort businesses. Three cases affirm the causal effects of flood on tourist agencies and resort businesses. Desaru, the popular beach holiday destination was severely affected, due to cancellations of hotel reservation made by the Singapore tourists. The Archipelago Travel Sdn. Bhd. revealed that their business had declined 20% to 30% during the flood event. More critical not only the local tourist agency had to face cancellation of trips, those tour agencies from outside Kota Tinggi had to bear with the cancellation and alteration of holiday sites.

##### *Disruption of Nature and Heritage Tourism:*

Kota Tinggi is blessed with nature and heritage tourism, and disruption to these assets has eventually weakened its strength to attract eco-tourists. During the study, one important attraction seriously affected was the firefly attraction. According to the key respondent, flood disaster has caused disruption in the fireflies' ecosystem, thus affecting the traffic flows of eco-tourist. From our observation, even though there are only two companies offering legal fireflies watching activities, their business operation since the 1960s guarantee a livelihood to many of those working in this attraction. One of them is operating by the riverside in the heart of Kota Tinggi town, and is owned by a Chinese businessman who has been in the business since 1960's. It was for a month after the flood disaster that there were still no tourists of both local and international markets who came to see fireflies, a total breakdown to their sources of income and business.

Besides nature attractions, disruptions on the historical attractions of Old Johor such as the Tomb of Laksamana Bentan and The Tomb of Sultan Mahmud had raised some frustration to the tourism providers. A temporary closure of these sites had cause a drop in cultural and heritage tourist arrivals in Kota Tinggi, thus affecting their businesses as well.

##### *Losses in Accommodation Businesses:*

Accommodation sector had a major blow due to the flood event, and this was due to the two major causal, damage in premises and suspension in tourism services. Almost all hotels in the city centre could not function when the ground level was submerged in the flood. Even worst, it struck during the peak season of regional tourism, especially for the Singapore market. The study found that several hotels in Desaru had recorded a drastic decline in the occupancy rate; Desaru Perdana Resort had 50% drop in its occupancy rate and Seban

Resort, recorded only 26 golfers compared to an average 40 golf travellers per week. Overall, the Johor's tourism sector had a 90% decline in occupancy rate, causing all major operators to suffer from huge losses.

From our interviews during our first visit, the hoteliers stressed that suspension in operation had made them facing various difficulties; and the problem was even complex when their guests had divert from travelling to Kota Tinggi as elaborated below:

*The manager of Hotel Grand Water lilies stated that his most frequent visitors comprised foreigners especially the Japanese, Singaporeans and Europeans, and no denying the domestics. Guests staying at his hotel include officials, businessman and transits for island tourism of Pulau Besar and Pulau Sibul. The hotel was backed in operation about two months after the flood, and it took 5-6 months to completely refurbish their facilities. Many of my guests had cancelled their bookings and we can do more to help them.*

*Meanwhile the Nasha Hotel, one of the renowned hotel operating since 1975, had their guests from both local and international tourists including travellers from Denmark, Europe, New Zealand and Singapore. The flood had caused this hotel to seize its operation for 2 months, and had incurred losses of RM100, 000 due to damages of the furniture, elevators and other equipment failure. My hotel took almost a half year to recover and I really need to plan to face any risk with the changing climate.*

#### *Losses to the City Tourism Services:*

The flood had crippled the city economy, and the impacts were clearly visible during the field study. Urban economic sectors including urban services, shop premises, restaurants, banks and other urban activities were badly affected (Md Ariffin 2007, Ministry of Natural Resources & Environment 2007a). From our interviews with the owners of selected business premises, two major reasons of losses were identified. First, was the problem of crippled and paralyzed business, and second was the delay of aids distribution to the flood victims. The situation was worsened when the flood struck for the second time as mentioned by the retail business:

*A retail dealer who wishes to withhold his name admitted that his business may be forced to close as he cannot bear the loss he had suffered. "At the end of the month, all stocks that have been taken must be paid. But when the flood occurred, how can I find the money to make the payment. All items have been damaged by water," he said. According to him, his burdens continue to increase because he has not yet managed to pay his workers, and the shop rental is now overdue. "I had given up in business, if I did continue, maybe not in the town of Kota Tinggi anymore, but elsewhere," he said, claiming to lose almost RM200, 000 due to the disaster.*

*A small business operator of traditional culinary expressed that his 'kuih business' suffered a loss of about RM300, 000 when all equipment and materials, including flour and sugar were destroyed in the flood. "I've been cleaning the shop for almost a week but still has not been fully cleaned, probably another three weeks before I can start operating. "I'm disappointed and frustrated by what happened, if it were possible to do business, I will, if not, I will just close it down ... What more can be done," he said.*

#### *The Tourism Providers Responses:*

As mentioned that this article aims to apprehend the tourism providers' responses after the flood receded as well as to identify undertaking of recovery measures, this section delineates the findings in three major dimensions.

#### *Response from the Tourism Businesses:*

In the study area, the tourism business encompasses tour agency, heritage providers, hotels and resorts as well as the public attraction. As previous studies had shown that recovery after flood had receded could be seen in two stages. First, to recover flood event, most of the operators or the premise owners had made their own cleaning and clearing of their premises. Many of the premises were submerged with water, causing losses to their goods, stock and premises, and even to their personal and office belongings.

Second, to continue operation and overcome losses, fast track business initiatives were taken. Among the hoteliers, even though they had managed to open their business with limited facilities and services provided, it was nevertheless with lots of fear. Meanwhile the tour agencies had stopped bringing tourists temporally and seek for alternative routes. Apart from the hotel and tour agencies, the textile retailers had been badly affected. Kota Tinggi, being recognized as the textile town among the locals and regional tourists, the dealers had made some drastic measures to organize cheap sales or selling at knockdown prices of their 'soaked stocks'. This situation had triggered massive 'shopping tourism' and influx of day trippers causing traffic congestion, reported in the media as follows:

*"...It is estimated that more than 3,000 vehicles have been located in the city centre since 10 a.m., and this number is expected to increase in the evening, and will be causing traffic congestion. ....some retailers in the town began to sell various goods that were submerged in the floods through auction sales since December 25.*

*Retailers have to sell all the affected and unaffected goods at affordable prices in order to obtain the cash flow. "If these auction activities could be extended and get publicized, I believe it will not only be a tourist attraction but also help the city's business activities," said Yusof Sulin, 52 years. "Berita Harian: 2 January .2007*

#### *Regional and National Tourism Community Initiatives:*

In the context of tourism, aside from being established as historical city, Kota Tinggi is also called with a localized name, the *Mini Kelantan*. From the traders' perspective, Kota Tinggi offers a shopping paradise environment with textiles and clothing products as their specialties. During the disastrous flood however, its famous image had been threaten by the foreign broadcastings on the widespread of theft incidents at the business premises and abandoned residential since the residents had to move to the evacuation centre. This was certainly a conflicting to the image of Kota Tinggi as during the flood occurrences, social supports from various entities, including from the international and regional agencies are evidence.

Another pressing panic affecting the tourism businesses in Johor and the Kota Tinggi community was the cancellation on hosting of planned events during the nation's event of Visit Malaysia Year 2007. While this opportunity could have doubled their income, they had to bear with the losses of not being able to hosting many of the initial planned programmes, instead had to channel to the other neighbouring districts. Only after the city had been restored with the beautification of the city centre program, tourist arrivals were back to normal.

#### *Responses from the Public Sector:*

Despite of the negative impacts due to catastrophic flood, there is no doubt that the disaster was a blessing to Kota Tinggi. The city restoration programs have not only restored the town to its previous condition, but have made the city more beautiful and cheerful. With the government allocation of RM70 millions for city refurbishment, this has directly benefited the tourism industry (Samaile 2007). Roadways, bridges and tourism attractions have been given great emphasis in these restoration programs. The effort to deepen the river to overcome future flood catastrophe have returned the collateral guarantee to business community, hence capable of directly attracting investments to Kota Tinggi.

Based on our survey on the tourism and city dwellers, majority respondents believed that the redevelopment after the flood had progress well. Most of the damaged roadways, shops, shopping malls, schools, rivers and drainage system as well as other infrastructures have been restored, until the visitors feel like Kota Tinggi had never been crushed by a catastrophic flood. The perception of the locals on several facilities during the survey conducted from 1 to 3 September 2007 shows the following results:

#### *Communication and networking:*

The study reveals that 26.7% of respondents believed the road restoration was very satisfactory, while 73.3% mentioned the recovery process was satisfactory. Public transportation was in good condition, in which 20% felt highly satisfied and 80% were satisfactory.

#### *Business premises:*

About 50% of respondents evaluated the shops in city centre as very satisfactory while 50% satisfactory. Business premises recorded over 56.7% of highly satisfied respondents, while 43.3% said satisfying. As for the shopping centre, 43.3% felt very satisfied and remaining 56.7% were satisfactory.

#### *Social amenities:*

Public restroom facilities in Kota Tinggi was in very good condition (50% of respondents), and 33.3% thought the facility was in satisfactory condition. As for the public phone, 16.7% said very well, 50% satisfactory and 33.3% were not sure. For the parks, the total of 56.7% stated that these facilities were very satisfactory, 26.7% were satisfactory and 16.7% said uncertain. The places of worship were in very good condition (66.7% of respondents), and 33.3% were satisfactory.

#### *Services:*

Bank services were in the satisfactory condition, with 50% of respondents felt that the service was very satisfactory. For the services offered by government bodies, 66.7% of respondents said it was very satisfying, and 33.3% said it was good. A total of 93.3% of respondents were satisfied with the schools. Both the private clinic and hospital services were very good and very satisfying; with 66.7% and 50% respectively.

Overall, the image of Kota Tinggi has improved back after the catastrophic flood as it was pictured having a 'bad' landscape with abandoned projects before the flood. The disastrous flood provides an opportunity to restore Kota Tinggi's image as historical town.

Based on the above findings on how flood had impacted tourism providers and what measures they have chosen and opted; there exists clear evidence that the level of preparedness and knowledge on flood as disaster or risk they had to encounter is still minimal. Even though Kota Tinggi is a flood-prone area, comprehensive contingency plan has not been set up in a proper manner incorporating measures for the pre-flood, during the flood and recovery period. In fact through the responses from each of the tourism sector, tourism is not a priority in flood management plan either at the local, state and national level.

### Conclusion;

This study affirms that floods have its impacts on tourism, bringing not only direct and indirect losses and damages to the premises and touristic attractions, but more pertinent resulting a critical situation that most of the tourism providers need to dealt with. The immediate impacts can be clearly seen in sub-sectors of tourism especially among tour agencies, hotel sector, shopping, heritage sites and retailers. While the impacts were quite clear among the tourism industry, what should be done after flood had receded was not clearly rendered by most of them.

The performance of tourism industry had decline due to the obstacles and risks caused by the floods. The levels of impacts are closely link to the varieties of tourism resources and tourist market it caters. As the country was confronting with the flood hazard very badly, it is noticed that tourism industry has not been the priority of *save period* of the disaster. This is because the welfare of the local residents, evacuation and placement of residents are given a priority compared to tourism industry even though it is the state's and national income generator.

From this study, it is proposed that an integrated study on the flood impacts need to be done in order to produce a tourism contingency plan, as part of the flood recovery plan. This is because, without an action plan, resources and tourist attractions especially heritage and historical sites might be destroyed and difficult to be restored. It is through such considerations; the sustainability of the tourism assets – nature and cultural assets will be guaranteed.

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