#### **Research Note (2884 words)**

# Phi Phi revisited. A continuation of disaster vulnerability?

# Abstract

This study develops previous research conducted (see Taylor 2012) into disaster vulnerability on Phi Phi Island, which resulted in the development of a detailed framework of vulnerability factors intertwined with factors of political economy presenting a post-disaster situation that was highly vulnerable and non-conducive to sustainability. The paper proposes future research directions for identifying and mitigating destination vulnerability. Whilst there has been limited research undertaken from a tourism development perspective in the intervening years (Calgaro, 2011; Steckley and Doberstein, 2011), that which exists points again to overtourism (Koh and Fakfare, 2019). There is growing evidence to suggest that tourist satisfaction has been diminishing for a long time now (Ee and Kahl, 2014). and that vulnerability has been recreated creating the conditions for a future disaster as predicted by Blaikie *et al* (2003).

#### **Keywords**

Koh Phi Phi, Thailand, Tsunami, Disaster, Vulnerability, Redevelopment

#### Introduction

In the post-disaster context of the Asian Tsunami, exploratory longitudinal case study research was undertaken on Phi Phi Island, Thailand. The early research conducted between 2004 and 2012 sought to assess the influence of factors of political economy upon the viability of responsible post-disaster redevelopment of the island, following widespread destruction of the island's infrastructure. It followed academic concern about the limited insight within existing bodies of knowledge into how sustainability and sustainable tourism development are conceptualised at a grassroots level by inhabitants and other stakeholders of tourism destinations (Liu, 2003; Maida, 2007; Mowforth and Munt, 2015; Redclift, 1987; Swarbrooke, 1999) and furthermore how these conceptualisations can be shaped through expressions of political economy in a post-crisis context.

Numerous authors have highlighted a relative lack of academic attention directly addressing the influence of political economy on achieving sustainability in post-disaster reconstruction (Beirman, 2003; Bommer, 1985; Faulkner, 2001; Glaesser, 2003; Hystad and Keller, 2008; Klein, 2008; Olsen, 2000; Ritchie, 2004). This work extended existing academic debates and studies in a number of areas. Concerning the political economy of post-disaster reconstruction there is an apparent trend towards 'disaster capitalism' (Klein, 2005: 3) or 'smash and grab capitalism' (Harvey, 2007: 32) and 'attempts to accumulate by dispossession' (Saltman, 2007a: 57). However, this did not occur on Phi Phi. Despite claims of an alleged 'clean slate' being offered by the tsunami in developmental terms (Altman, 2005; Argenti, 1976; Brix, 2007; Dodds, 2011; Dodds *et al.*, 2010; Ghobarah *et al.*, 2006; Ko, 2005; Pleumarom, 2004; Nwankwo and Richardson, 1994; Rice, 2005; UNDP, 2005), the 2004-2012 research provided evidence and explanation of why this did not and would never exist on Phi Phi, a finding that may be of interest to other destinations in a post-disaster context.

The 2004-2012 research explained the factors of vulnerability within the context of Phi Phi and cautioned that, on account of the political economy of the island's redevelopment, vulnerability

had been recreated and presented optimal conditions for a future disaster. A situation that was highly volatile and fragile and didn't seem to be aligned with a sustainable future.

In the context of my ongoing research on tourism redevelopment on Phi Phi, this research note looks at whether a natural disaster, regarded as the most significant still in recorded history to affect tourism destinations in a wide range of countries (Hall, 2017), served to aid any long term reassessment of a development trajectory that had contributed to such vulnerability and loss and was deemed highly unsustainable (Dodds, 2010). When the initial research of 2004-2012 sought to develop a set of prepositions concerning the viability of a sustainable future for the island, surely follow up research conducted in the present day could be of value to determine if, as Blaikie *et al* (2004) predict, vulnerability is recreated in the wake of a disaster and creates conditions for future disasters. If it did, why was this? And if it didn't, why was this? This may then offer insight for those taking responsibility for tourism planning and development in destinations affected by crisis, to mitigate vulnerability.

## **Research Approach**

An interpretive philosophy informed the research design, in which primary data was gathered using an inductive mixed methodology. Data collection methods employed in the 2004-2012 study included online research, which involved the design and administration of a tailored website to overcome geographical and access limitations and through which to promote interest in the research; and offline methods such as visual techniques to monitor change and confirm opinions offered by participants of the research; in-depth face-to-face interviews with purposefully sampled stakeholders of Phi Phi's development; open-ended questionnaires with tourists; and open ended response Thai script questionnaires in order to overcome language barriers and present a Thai 'voice'. The questionnaires targeted at tourists sought to establish

their patterns of behavior whilst on the island, their consumption habits, conceptualisations and interests in sustainability. The questionnaires written in Thai script were targeted at residents to canvas their opinions concerning tourism development, conceptualisations of sustainability and aspirations for the future. Data was initially collected between July 2005 and August 2012.

The island was revisited in March 2019 to conduct observations, chart the island's infrastructure via visual methods and re-establish a network of contacts. During the March 2019 visit, three informal focus group discussions took place in order to scope out the current sentiment of islanders concerning tourism development and the current challenges that were faced by islanders from a sustainability perspective. These views, in addition to personal observations were used to craft an online questionnaire that has been shared with contacts established on the island during this visit who were added to a database of Phi Phi businesses, residents and interest groups that has been compiled through a comprehensive search of social media networks with an interest in Phi Phi as a tourism destination. This questionnaire seeks to gather current day sentiment regarding the island's development, aspirations and fears and reflections on the sustainability of tourism on the island. The questionnaire is still live at the time of writing.

### Outline of the study area

Phi Phi Don and Phi Phi Le are still, to many, the epitome of a paradise island location. Incorporated into the Hat Noppharat Thara National Marine Park in 1983, the island group is located within the Ao Nang sub-district of the Krabi Province of southern Thailand. They represent another addition to the great number of island and beach destinations in southern Thailand, which include Koh Samui, Koh Phuket, Koh Phan Ngan and Koh Tao, to develop organically in an unplanned manner beginning in the 1980s to support tourism (Konisranakul & Tuaycharoen, 2010). Despite being more accessible in recent times, the islands bear similarities to Cohen's (1983) description of Koh Samui in the 1980s: they are little incorporated into the national society and only superficially controlled by the national civil administration and police on account of the role of power landowners, typically not native of the island but with the foresight to buy land prior to large scale tourism development.

There are two main islands within the group: Phi Phi Don, the largest inhabited island (8km long by 2km wide), and Phi Phi Le (3.5km long and 1km wide), which is uninhabited on account of its National Park status. This is of notable importance in the controversy surrounding *The Beach*. Whilst Phi Phi Le was the chosen filming location for Fox's motion picture, the development of tourism occurred where development was permissible, on the larger island, Phi Phi Don, and most specifically the central Tonsai/Ao lo Dalaam area (familiarly termed the 'apple core'). It is widely deemed that the film tourism effect of *The Beach* is accountable for the extent of development that has occurred on Phi Phi Don (Koh and Fakfare, 2019).

Figure 1 illustrates the significant milestones in Phi Phi's tourism development:

	First inhabitants arrive on Phi Phi Don from Koh Yao
1945-50	Muslim Fisher people
1242-20	Claim rights to land through coconut and cashew farming
	-•First tourists arrive via 4 hour long tail boat ride from Krabi
	•Basic bamboo Bungalows built by Cabana Group
	<ul> <li>Incorporated into the Hat Noppharat Thara National Marine Park in 1983</li> </ul>
<b>1980</b> s	<ul> <li>Outside business interests form links with islanders willing to make land claims on their behalf</li> </ul>
	•150,000 Annual Visitors
2000	Motion Picture The Beach released
2000	
	•1.2 Million Annual Visitors
	Circa 3000-4000 residents
2004	•26 December – Asian Tsunami Hit at 10.37am by 10ft and 18ft high wave
	•80% of buildings destroyed
	•850 Bodies recovered, 1200 still missing, 104 Children lost one or both parents, 23,000 tonnes of debris removed
	•500,000 Annual Visitors
2005	•1,500 Rooms open
	-1,500 Noonis open
	•Constructed Wetland System completed
2007	
	Deep water Pier constructed
2009	•20 Baht arrival fee implemented
2009	Visitor numbers rise to once again circa 1.2 Million per annum
	<ul> <li>Circa 2000 residents (1500 local inhabitants, 500 Chinese Thai, Migrant Workers, Foreigners)</li> </ul>
2011	•3,500 Rooms available



Prior to the tsunami of December 2004, visitor numbers to Phi Phi had reached approximately 1.2 million annually (Dodds, 2011; Brix et al., 2007; 2011), up from 150,000 immediately following the filming of *The Beach* in 2000 (Royal Geographical Society, 2010). This then reduced to 500,000 following the tsunami (ibid., 2010). The bulk of visitors are in fact day-trippers from Phuket and Krabi, totalling at times 5000 per day prior to the tsunami (Dodds, 2011). An accurate picture of visitor numbers to the islands is difficult to ascertain, however, as there is no formal registration for arrivals (personal communication, November 2006). A method of registering arrivals was only introduced following the reconstruction of a deepwater

pier in Tonsai in 2009 and subsequent implementation of a 20 baht arrival fee in 2010. Additionally, as most day-trippers arrive by speedboat to the shores of Tonsai, bypassing the pier, they also bypass the 20 baht arrival fee. Additionally, resorts on the north-eastern beaches may offer their own private transfers via catamaran from Phuket's Rassada Pier, which again bypasses registration at the pier on Phi Phi (http://www.hospitalitynet.org/news/4020701.html). This makes quantifying visitor numbers to the islands accurately, rather difficult, although current figures are estimated at 1.9 million per annum (Tourism Council of Thailand, 2019), reaching well in excess of 10,000 per day in peak tourist season.

On 26<sup>th</sup> December 2004, at 07:58, an underwater earthquake of 9.3 on the Richter scale was triggered from an epicentre off the coast of Banda Aceh, Northern Indonesia (<u>www.phi-phi.com</u>; Ghobarah *et al.* 2006). An initial harbour wave ten feet in height approached Phi Phi Don via Tonsai Bay at 10:37 and a second, more deadly wave of eighteen feet approached via Ao Lo Dalaam Bay. This second wave devastated the flat low-lying 'apple core' area in the centre of the island where the two bays meet (<u>www.phi-phi.com</u>). In total, the island had an estimated 10,000 occupants at the time the tsunami struck (peak season). Approximately 850 bodies were recovered on Phi Phi following the tsunami and more than double that figure were never recovered (<u>www.phi-phi.com</u>).

# **Initial indicators**

At the time of the initial research in 2012, it was found that the factor with the greatest influence over Phi Phi's redevelopment was the desire to develop the economy through tourism, and the philosophy underpinning that development was largely economic. The tsunami did not appear to cause any significant reassessment of the tourism development trajectory but served to uncover a range of conflicts and unlawful activity, resulting from powerful stakeholders pursuing their own interests and desired outcomes, in order to suit their own needs rather than those of the community as a whole.

In terms of how sustainability was conceptualised by different stakeholder groups, it was found that the meanings attributed to sustainability in this context differed greatly to meanings elaborated within western ideological debates. Stakeholders' conceptualisations of sustainability were mapped against key debates within literature. How meanings differed between stakeholder groups was also examined and a definition for sustainable tourism development on Phi Phi was compiled encompassing a broad range of interests. The work provided a rare opportunity to see which political, economic and cultural factors shape the planning of tourism development and whether actual practice mirrors the principles of sustainability. For islanders, present needs were yet to be met and education was recommended to increase islanders' understanding of impacts and sustainability, as well as their skills and knowledge base to enable them to compete intellectually with the ruling elite and reduce dependence upon landowners and the mainland.

In response to Blaikie *et al.'s* (2004) concerns that vulnerability is often reconstructed following a disaster and may create the conditions for a future disaster, the research conducted between 2004-2012 refined the work of Calgaro and Lloyd (2008) to identify a detailed framework of vulnerability factors intertwined with factors of political economy (as can be seen in Figure 2), presenting a post-disaster situation that was highly vulnerable and non-conducive to sustainability. The strategic response to the disaster was analysed through an adapted Strategic Disaster Management Framework (Jiang and Ritchie, 2017) to identify the shortcomings of the disaster response to comprehend how such a disaster has influenced tourism development and planning on the island, showing that this was a mirror opposite to how a disaster should be handled according to the literature (Adger *et al.*, 2005; Baldini *et al.*, 2012; Coppola, 2007; Faulkner, 2001; Jiang and Ritchie, 2017; Miller *et al.*, 2006; Olsen,

2000; Ritchie, 2004). The researcher drew on the notion of 'strategic drift' (Johnson, 1998: 179) and 'boiled frog syndrome' (Richardson, Nwankwo and Richardson, 1994: 10) to explain how host attitudes to tourism may increase vulnerability.



Figure 2: A framework of factors influencing Koh Phi Phi's vulnerability to disasters (Taylor, 2016)

An examination of development philosophy established how specific factors of political economy and relationships of a hegemonic nature influence the development trajectory of both Phi Phi and Thailand. Despite governmental rhetoric influenced by a strong 'sufficiency economy' hegemony led by the late King Bhumibol Adulyadej (Jitsuchon, 2019), the observations of dependency theorists provide a better fit for the experiences on Phi Phi and present significant challenges for the pursuit of sustainability. The research suggested that an

effective response to the disaster and pursuit of sustainability were undermined by the political economy of the destination.

### Conclusion

In the current day, an opportunity exists to revisit this location and assess whether propositions presented within the earlier work have been realised. In 2012, when the original research was concluded, there was still much ongoing redevelopment work on the island, and it is of interest whether the outcome of this work has resulted, once again in a form of tourism which is socially and ecologically unviable in the longer term. Certainly, initial responses received from island residents indicate that this may be the case, "many high rank business start to arrive (Mac Donald's, pizza company, burger king) and the waste management and waste water need to be improve[d]". Residents continue to be concerned about a lack of robust utilities on the islands to manage waste effectively and the lack of planning, "bad setting up after tsunami, the government should control the building approval, now it's too many buildings". This second quotation points to a recreation of the pre-tsunami state of affairs that is rooted in the political economy of the island which affords ultimate power to landowners and big business, many of which are outsiders. These initial findings are suggestive that the prevailing philosophy concerning the development of tourism is economic, with little space for sustainability considerations, "too much of outside people who's only want to come and make money only".

Whilst there has been limited research undertaken from a tourism development perspective in the intervening years (Calgaro, 2011; Steckley and Doberstein, 2011), much web-based discussion of the Ton Sai/ Ao Lo Dalaam area adopts a negative tone, and there is growing evidence to suggest that tourist satisfaction has been diminishing for a long time now (Kahl, 2014). Traveller Blogs provide a valuable insight into the current state of development on the island, and to the island's vulnerability. This has a clear impact upon the island's continued appeal, communicated via these first-hand accounts of visitors to the island, such as that of "Nomadic Matt",

'Ko Phi Phi charges 20 baht to visit (a conservation fee, they claim, though it's obvious they are just conserving their bank balance), Long Beach has been fully developed with large

resorts and hotels, music blasts throughout the island day and night, prices are high for no reason other than people will pay up, and the inner beach, still littered with coral, is now filled with bars, end to end. In the morning, there's more trash than beach. The water is super polluted with a thin film of...well, I don't want to know...on top of it. Trash and sewage are dumped right into the water. There were booze cruises, pricey boat trips, a McDonald's, and more restaurants serving Western food than Thai food. The town's buildings are so tightly that packed one loses any sense of being on an island. They Matt. 2018, literally paved over paradise.' (Nomadic https://www.nomadicmatt.com/travel-blogs/terrible-ko-phi-phi-thailand/). This description bears a stark resemblance to that of Lonely Planet writer Joe Cummings who offered a similar description in the pre-tsunami era. In addition to these environmental and planning concerns, questionnaire respondents following the 2019 visit noted an area of social concern that did not present in the 2004-2012 research, "locals today are using drugs and selling drugs to the *tourist*". A notable theme within the responses from residents is that in the current day they felt dissatisfaction on account of poor tourist behaviour which marks a shift in the predominant typology of tourist on the island, presenting challenges for sustainability.

This brief analysis has shown that the importance of undertaking this longitudinal research lies in Blaikie et al's (2004) prediction of the reconstruction of vulnerability. Has vulnerability been re-created on Phi Phi and, does it create the conditions for a future disaster? With an everincreasing range of shock events threatening the tourism industry (Ritchie and Campiranon, 2014) and with increasing competition from other south east Asian island locations (Hampton and Hamzah, 2016), it is considered to be an appropriate time to revisit the destination and assess whether Blaikie *et al's* (2004) assertations are true.

Phi Phi remains a valuable case of analysis, as, within this small geographical location, it showcases a range of contemporary concerns associated with the development of tourism. The environmental impact of film tourists and corresponding overtourism (Milano, Cheer and Novelli, 2018), compounded with the effects of plastic pollution (Junlah, Worachananant, & Vannarat, 2014) is nowhere more evident than on Phi Phi, most specifically Maya Bay, which after over two decades of degradation and mismanagement has finally been closed for

environmental regeneration (Taylor, 2018). Combined with this, we have a destination that is arguably still in a state of redevelopment post crisis. Initial indicators in the current day point to the fact that there is a re-creation of the pre-crisis development trajectory which is presenting a destination that is socially and environmentally unviable for residents and tourists alike. Further research and analysis is needed to fully understand the potential policy implications in terms of mitigation of vulnerability when redeveloping destinations that have been affected by natural disasters.

### **Disclosure statement**

No potential conflict of interest was reported by the author.

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