Can post-disaster tourism development improve destination livelihoods? A case study of Aceh, Indonesia

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ABSTRACT

Destinations are vulnerable to natural disasters, which can result in damage to infrastructure and built facilities, negative destination images, and a difficult time of recovery. Recently, a growing number of destinations have incorporated tourism development in their disaster relief efforts and used post-disaster tourism as a strategy to enhance local livelihoods and build community resilience. Guided by the Sustainable Livelihoods Framework for Tourism (SLFT), this study analyzed the case of Aceh, Indonesia, a destination that had been struck by a severe natural disaster and developed tsunami tourism as a strategy to recover. The data were collected through focus group interviews among local stakeholders. Based on the SLFT, this study employed a deductive approach to analyze the data and identified six themes. The findings not only validated the applicability of the SLFT to a post-disaster tourism development context, but also revealed how tourism could contribute to various community assets and a resilient destination in the aftermath of a crisis. The study also underscored the importance of local culture and religion during the recovery process. Based on the findings, further discussions are provided regarding the dynamics involving sustainable development, post-disaster tourism, and resilient destinations.

1. Introduction

Contemporary destinations are vulnerable to natural disasters, especially considering the continuous incidence of natural hazards in the past few decades, as well as their destructive effects on tourism (Faulkner, 2001). The occurrence of natural disasters can not only result in damage to infrastructure and built facilities, but can also lead to negative destination images, which may generate long-term adverse consequences for the destination (World Tourism and Travel Council WTTC, 2019). The recovery time from natural disasters, however, varies greatly, ranging from one month to 93 months (WTTC, 2019). The response of the tourism industry in the post-disaster phase is also highly variable. On one hand, some destinations have difficulties bouncing back and re-attracting visitors even though they have completed the reconstruction and restoration; but on the other hand, some destinations are becoming more attractive to dark tourists, a segment of visitors who are appealing to sites related to disasters, deaths, and of emotional impact (Miller, 2008). The emergence of this new phenomenon is also known as post-disaster dark tourism, which features the theme of disasters and occurs typically in the post-disaster phase (Prayag, 2016).

The tsunami tourism in Aceh, Indonesia, serves as a primary example of dark post-disaster tourism. The Indian Ocean earthquake and tsunami hit Aceh in December 2004, affecting over 200,000 people. After 14 years, Aceh has finally recovered from the natural disaster, with its continuous disaster relief effort as well as global assistance from various parties such as NGOs, militaries, and private companies. Interestingly, although tourism was not a traditional industry in Aceh, the rapid development of tsunami tourism has made it a new crucial economic sector in the aftermath of the disaster (Nazaruddin & Sulaiman, 2013). The tsunami tourism sites, such as the museum, the monuments, and the boathouse, have not only become popular attractions for both domestic and international visitors, but also provide local residents with recreation options (Nazaruddin & Sulaiman, 2013).

The 2004 Indian Ocean earthquake and tsunami is one of the most severe natural disasters in human history and learning how Aceh successfully recovered can provide destinations with valuable insights into disaster management. Several studies have already investigated Aceh's progress over the years, examining their traditional livelihood strategies such as agriculture (Thorburn, 2009), changes in the coastal landscape and land uses (Liew, Gupta, Wong, & Kwoh, 2010), and overall

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economic growth (Heger & Neumayer; 2019). Although tsunami tourism has contributed significantly to Aceh's recovery, very few studies have provided an in-depth analysis, exploring its impacts on residents, communities, and livelihoods. The Sustainable Livelihood Framework for Tourism (SLFT), which is developed based on the Sustainable Livelihood Framework (SLF) and customized to a tourism context, serves as a suitable framework for this context. Unlike traditional paradigms solely focusing on economic development, the SLFT emphasizes the importance of people and community assets, as well as how local communities can utilize appropriate livelihood strategies (i.e. tourism) to reach sustainable outcomes (Helmore & Singh, 2001; Serrat, 2017; Tao & Wall, 2009). Thus, by applying the SLFT to analyze Aceh's tsunami tourism, the purpose of this study is to obtain a comprehensive understanding of how post-disaster tourism may assist destinations in recovering from natural disasters, enhancing resilience, and pursuing sustainable livelihood outcomes.

2. Literature review

2.1. Natural disasters, post-disaster tourism and destination resilience

Natural disasters, ranging from hurricanes and wildfires, to earthquakes, seem to have been on the upswing in recent decades, often with devastating effects. Natural disasters are low-probability, high-impact events that can generate system-wide impacts, such as loss of lives, reputational damage, and a lengthy recovery period. The total economic damages caused by natural disasters have increased by 684% from US \$19 billion in 1970 to US\$149 billion in 2016 (WTTC, 2019). The time it takes a destination to recover from a natural disaster also varies, where the shortest on record only taking a month while the longest taking 90 months (WTTC, 2019). Thus, as important as it is to develop a comprehensive disaster management framework, it is also imperative for destinations to learn from those who have experienced and successfully recovered from major natural disasters.

Accordingly, studies have been conducted to examine how destinations recover from major natural disasters. For example, Miller (2008) used an auto-ethnographic approach to analyze post-disaster tourism development in New Orleans after Hurricane Katrina, highlighting the branding strategy of promoting New Orleans as a 'comeback city' to rebound the local tourism industry. In addition to re-creating an image of safe destinations, it is also noted that sometimes new destination attributes emerge from the disaster, which presents the destination with a unique opportunity to recover. For instance, Biran, Liu, Li, and Eichhorn (2014) studied domestic tourists' motivation for visiting Sichuan, China, in the aftermath of an earthquake. They found that the onset of a natural disaster can lead to changes in a destinations' appeal, with people's special interest in earthquakes having resulted in a growing number of visitors to Sichuan. Prayag (2016) called this phenomenon 'post-disaster dark tourism,' which generally occurs in the post-disaster phase and surrounds the disaster theme. In the same vein, Lin, Kelemen, and Kiyomiya (2017) investigated blue tourism, a post-disaster dark tourism development project in Japan following the 2011 Great East Japan Earthquake and Tsunami. They (Lin et al., 2017) noticed that blue tourism assumes a scope beyond the traditional definition of dark tourism, as it not only includes non-touristic activities, but also serves as a form of resilience for the local community. Lin et al. (2017) further suggest that the success of blue tourism mainly lies in community-based initiatives and collaborations among key local stakeholders.

Scholars such as Hall (2017, pp. 18–33), Lin et al. (2017) and Tucker, Shelton, and Bae (2017) suggest that resilience is one of the most essential elements in destination recovery. Sharpley (2009) points out that developing post-disaster tourism should be based on the understanding of the phenomenon within its social, cultural, historical, and political contexts, which is consistent with the underlying assumption of sustainability. These notions are crucial, as there is a need to conceptualize post-disaster tourism using a more general and comprehensive

approach (Lennon & Foley, 2000). Post-disaster tourism research should be placed in a more broadened and 'non-Western' areas to gain varied perspectives where the influences of local culture should not be overlooked.

Additionally, Prayag (2016) argued that residents and their feelings should also be taken into account when developing post-disaster dark tourism in destinations. Consistent with the controversy associated with dark tourism, residents, who are survivors and victims of the disaster, may express negative emotions such as grief and sadness over the presence of dark tourists. By studying residents' emotional response to post-disaster dark tourism development in Christchurch, New Zealand, Prayag (2016) found that both positive and negative emotions of residents can be elicited by visitors who are seeking disaster-related experiences. Tosun (2000, 2005, 2006) has repeatedly addressed the importance of community participation in developing tourism projects. This subject, however, has not been discussed much in the context of post-disaster tourism. A situational approach is very much needed, where site-specific characteristics need to be considered. Local culture is a factor that might contribute to, and therefore be included in post-disaster tourism development: after all, post-disaster tourism is an intimation of post-modernism. There is a need to use a comprehensive approach that includes insights from local perspectives on how to decide, plan, and manage what could be 'post-disaster dark tourism' attractions.

2.2. Sustainable Livelihoods Framework for tourism (SLFT)

Livelihoods can be understood as "the capabilities, assets (including both material and social resources) and activities required for a means of living" (Scoones, 1998, p. 5). A livelihood is deemed sustainable when "it can cope with and recover from the stresses and shocks and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource base" (Serrat, 2017, p. 21). The Sustainable Livelihoods Framework (SLF) has been frequently used as a strategic guideline to lead community development (; Brocklesby & Fisher, 2003; Serrat, 2017). The SLF has four critical components (See Acre, 2003; Brocklesby & Fisher, 2003). The first component is *a vulnerable context*, which suggests that the stability of communities can be influenced by various issues such as shocks, seasonality, and critical trends. Changes in the communities' assets may occur as a result. The second component is a community's *capital assets*, which can be categorized into five types, namely, human, social, natural, financial/economic, and physical capital. *Human capital* refers to one's skills, knowledge, and the ability to work; *social capital* involves the social resources that people draw upon to make a living; *financial/economic capital* refers to financial assets such as income, saving, and credit; *natural capital* includes the re-occurring natural resources; and *physical capital* refers to the basic infrastructure needed to support livelihoods. The third component refers to *livelihood strategies*, which are normally implemented to develop a community and contribute to its capital assets. The fourth component is *policies and institutional support,* which are needed to maximize the effectiveness and benefits of the chosen livelihood strategies.

Tourism development is one of the most common livelihood strategies for community development (Shen, Hughey, & Simons, 2008). However, tourism development can result in both positive and negative changes in local livelihoods in destinations, which sometimes makes it difficult to reach sustainable outcomes. Tao and Wall (2009) thus suggest that a sustainable livelihood approach should be used in tourism development. Given the importance of sustainability in tourism development, the SLF has been used as a theoretical framework to assess sustainable livelihood outcomes in tourism development. Tao and Wall (2009) first applied the SLF to the tourism context, analyzing the links between tourism and other livelihood strategies in an indigenous community in Taiwan. Following their efforts, several studies have been conducted using the SLF to evaluate tourism development in different

sites, such as rural tourism destinations (Su, Wall, Wang, & Jin, 2019), heritage sites (Su, Wall, & Xu, 2016), and community-based tourism attractions (Matarrita-Cascante, Brennan, & Luloff, 2010). The application of the SLF has also been extended to a broader context involving destination resilience (e.g. Biggs, Hall, & Stoeckl, 2012), poverty reduction (Krantz, 2001), and community development (e.g. Matarrita-Cascante et al., 2010).

Shen, Hughey, and Simmons (2008), moreover, suggest that directly applying the SLF to tourism is not enough: tourism should be treated as a context, and there is a need to integrate SLF and tourism development where all the unique characteristics of tourism are considered. Shen et al. (2008) further propose a sustainable livelihood framework for tourism (SLFT) (See Fig. 1). Consistent with the traditional SLF, the SLFT features different types of assets, including human, social, natural, and economic capital. A new kind of capital, namely, institutional capital, is added to the new model. Shen et al. (2008) define institutional capital as "providing for people's access to tourism markets, tourism benefits sharing, and access and participation in the policy-making process, and the extent that people's willingness to be involved is reflected in political decisions to achieve better livelihood outcomes" (p. 10). Instead of looking at individuals and households, the SLFT tends to consider the whole community as a unit and analyze the impacts of both tourism-related activities and non-tourism-related activities on the livelihood outcomes. Although this model has not been tested empirically, it can provide a holistic approach to the impact of post-disaster tourism on local communities from multiple perspectives.

3. Methods

3.1. Study site

Aceh is an island destination located in Indonesia (See Fig. 2). Aceh used to be a highly restricted area due to a long war with an Acehnese separatist guerrilla force. The Indian Ocean earthquake and tsunami hit Aceh in December 2004, killing over 160,000 people and destroying the coastal infrastructure (Fig. 3). In 2005, there was a decrease of 300,000 visitors to Indonesia compared to the year before the tsunami. Additionally, as Aceh opened its doors to accept disaster relief assistance from all over the world, they also reached a peaceful resolution with the

Indonesian government through the signing of the Memorandum of Understanding in Helsinki, Finland, in 2005 . As a result, Aceh was granted special autonomous governance and given the privilege of applying Islamic laws to its residents, which is also known as *Qanun* (Aceh government, 2014).

To help Aceh recover from the tsunami, the local and central governments collaborated with multiple humanitarian organizations and foreign countries, and devoted efforts to post-tsunami reconstruction through various projects (Jauhola, 2013). Notably, tourism development is highlighted as one of the most important initiatives (World Tourism Organization UNWTO, 2005). As a result of the joint effort, Aceh has developed several prominent tsunami-related sites, such as the Aceh Tsunami Museum, the Tsunami Educational Park, the Tsunami Inundation Monuments, and the 'Aceh Thanks the World' Memorial Park. These sites have become tourist attractions and stimulated the further development of post-disaster tourism in Aceh, or regionally known better as 'tsunami tourism' (Nazaruddin & Sulaiman, 2013). The development of tsunami tourism in Aceh followed a top-down approach, where the state government took the lead, coordinating all the aids and funds, and monitoring all the projects closely. In April 2005, President Yudoyono created a temporary agency in Banda Aceh, known as BRR (Badan Rehabilitasi dan Rekonstruksi), to oversee and manage all the recovery efforts. The Aceh Tsunami Museum, for example, was proposed and established after the discussions between the BRR, local government, and other stakeholders such as NGOs. The Aceh Culture and Tourism Agency was mainly responsible for promoting Aceh among both domestic and international tourists.

The 14-year effort has transferred Aceh from a disaster site to a popular destination, boasting various attractions ranging from beach, cultural attractions, tsunami tourism attraction, to marine activities. As shown in Fig. 4, between 2008 and 2012 there is significant growth of domestic and international visitor numbers coming to Aceh. The number of domestic travelers increased from 710,081 in 2008 to 1,070,000 in 2012, by almost 30%, whereas international tourist numbers grew from 17,282 in 2008 to 30,000 in 2012 (See Table 1). Aceh has a population of around five million people, and nearly 16% are employed in the tourism industry (Organization for Economic Co-operation and Development. 2019). Compared with other provinces in Indonesia, Aceh tourism is still inconsiderable, yet the numbers of visitors rise every
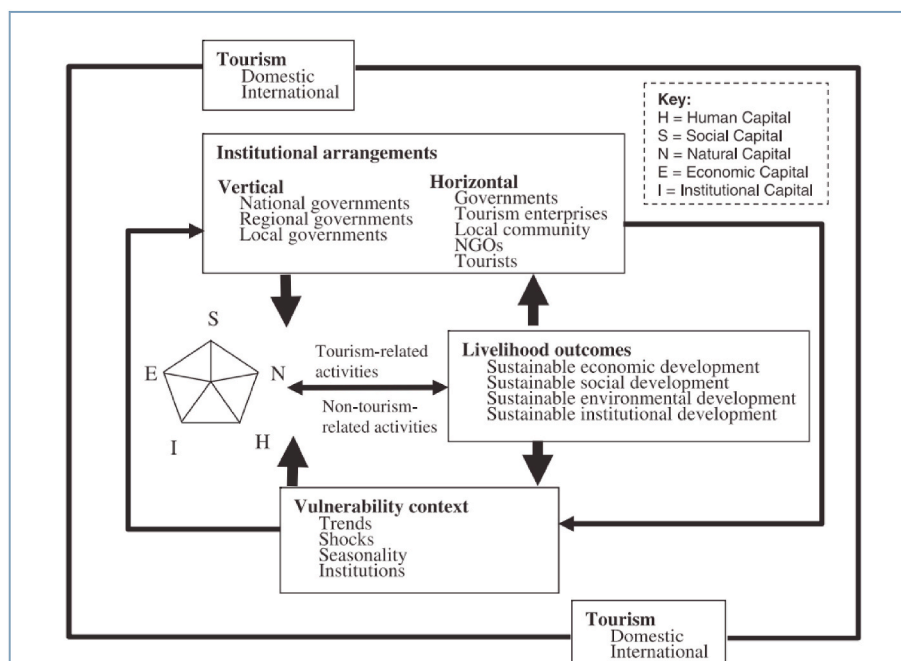

Fig. 1. Sustainably livelihood framework for tourism (adopted from Shen et al., 2008).

Fig. 2. Map of aceh (source: http://ww4.hdnux.com/photos/10/15/37/2152391/5/628x471.jpg)..

year. One recent report showed that the total number of visitors to Aceh reached 2.5 million in 2018 (Antara News, 2019). Aceh is also endowed with resources for its tourist attractions. Being established in the 2010s, tourist attractions in Aceh have grown more diverse and broader in type and number. In 2013, there already existed about 426 natural and 268 cultural attractions. Examples of these attractions include package tours for Ramadhan (the holy fasting month for Muslims), underwater adventures, and tsunami heritage tourism. Among the wide variety of options, it is noted that the development of tsunami tourism sites has particularly offered residents and communities opportunities to re-build livelihoods and return to 'normal' life (Kurien, 2017).

The case of Aceh provides an ideal context for this study for two reasons. Firstly, tsunami tourism in Aceh best exemplifies the connection between tourism, destination recovery, and sustainable development. Notably, Aceh was not a traditional tourism destination before the tsunami, but the recent expansion of tsunami sites has earned it a new reputation of tsunami tourism destination, which has attracted an increasing number of visitors over the last decade and provided local communities with new livelihood strategies (Antara News, 2019). Although the recovery time may vary, the steady growth over the last few years has indicated the contribution of the tourism industry to Aceh's recovery as well as the stability of the industry. Additionally, similar to other successful cases such as the blue tourism in Japan, the development of tsunami sites in Aceh benefits residents and is closely tied to the entire community (Nazaruddin & Sulaiman, 2013). Thus, SLFT appears to be an appropriate framework where we can obtain an in-depth understanding of how tourism can assist local communities in achieving sustainable livelihood outcomes within a changing environment. The second reason deals with the unique cultural and religious features of Aceh. As mentioned, Aceh is allowed to apply Islamic laws (i. e. Qanun) to its residents. As an essential element of culture, religion

affects people's values, beliefs, perceptions, and behaviors. Current studies in post-disaster tourism and dark tourism, have not examined the elements of local residents (Prayag, 2016). Similarly, the influence of local culture and religion on residents' perception, attitude, and even involvement in tsunami tourism remains an underexplored topic. Accordingly, Aceh can provide a context for this study to investigate the role of local culture played in the destination recovery process and provide additional insights besides a straightforward application of the SLFT (seeFig. 5).

3.2. Data collection

The data used for this particular study are drawn from focus group interviews that were conducted in early 2018. Focus groups are commonly used to evaluate a program or to estimate its impact to provide insights into future research (Gibbs, 1997). Focus groups also allow the explicit usage of group interaction to generate data and insights that would be harder to reach without the interaction found in a group (Coats & Ferguson, 2013). This study is particularly interested in obtaining insights into the collective way of thinking and beliefs among the participants and the interaction between group members when they discuss perceptions, involvement, and reasons behind tsunami tourism development. The in-group discussions can also reflect the discourse that is occurring between community members every day (Coats & Ferguson, 2013). Additionally, Guest, Namey, and McKenna (2017) found that 90% of themes can be discoverable within three to six focus groups. Accordingly, six focus groups representing different local stakeholders of the community were included in this study. The participants were residents who have lived in the Ach for a period, both pre- and post-disaster. Snowball sampling was used to recruit the participants, whereby the researchers sought initial recommendations from

Fig. 3. The city of banda aceh, before and after the December 26, 2004 tsunami. (Source: http://clg.lorris.svt.free.fr/IMG/jpg/banda_aceh_tsunami.jpg.
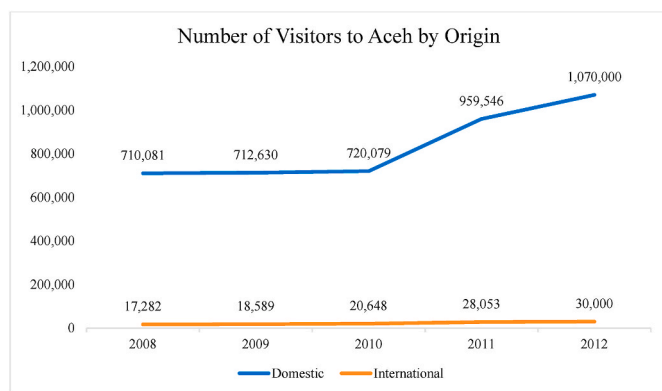

Fig. 4. Number of visitors to aceh by origin.

between subgroups in the population (Parker & Tritter, 2006). A total of 27 participants, which were further divided into six sub-groups, were included in the study. Their assignment to different groups was based on their roles in tsunami tourism. The group information is presented in Table 2.

The focus-group interviews were hosted in a local facility and facilitated by one of the researchers, who was fluent in both Acehnese and English. Six sessions were held, and the average time of the sessions was 72 min, where the shortest session took about 57 min, and the longest took about 85 min. A set of questions (see Appendix) was used to guide the discussion, and these questions were mainly about participants' involvement/non-involvement with and perceptions/attitude towards tsunami tourism development. The focus group discussions were recorded, transcribed, and then translated to English for further analysis.

3.3. Data analysis

Guided by the SLFT, this study used a deductive approach to analyze the data, which involved three steps: (1) developing a coding scheme

community leaders and then asked each invited participant to provide a list of potential candidates based on their social networks. This is an appropriate way to make proportionate and meaningful comparisons

Table 1
An overview of the tourism resource in Aceh by 2013.

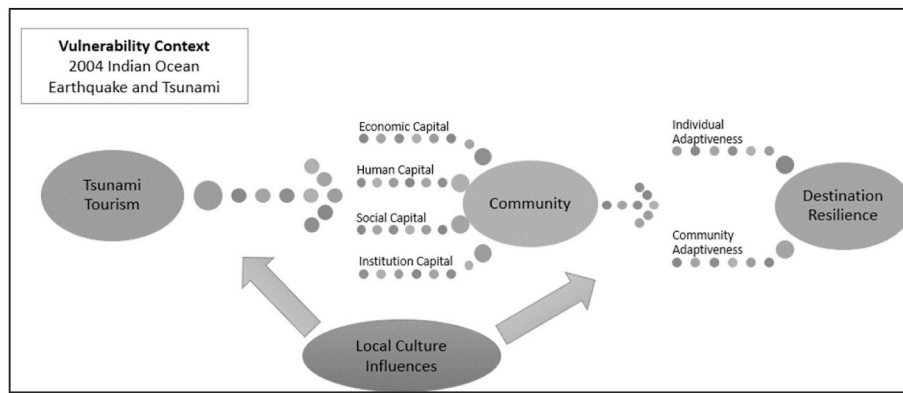| Superstructure Types	Hotels		Restaurants	Eating Houses	Cafes	Travel Offices	Gift Shops	Tourist Attractions	
	Star Hotels	Non-Star Hotels						Natural	Cultural
Number of Establishments	29	287	58	620	279	118	71	426	268

Fig. 5. Overall thematic framework.

Table 2
Focus group interview participants.

Group No	Composition	Number of Group Members
1	Government officers, policymakers, and/or consultants and planners.	4
2	Tour guides or staff at the site" Boat at Top of the House."	5
3	Tour guides or staff at the site "The Aceh Tsunami Museum."	5
4	Tour guides or staff at the site "Ulee Lheue Mass Grave."	4
5	Tour guides, hotel providers, or local tour companies specialized in tsunami tourism in Aceh	4
6	Residents who were not involved in tsunami tourism in Aceh.	5

consist of major themes based on the literature (e.g. Shen et al., 2008), (2) providing definitions for each theme, and (3) sorting the text into different themes. Based on the major constructs in the SLFT, the original coding scheme included the following themes: *human capital, social, nature, economic, institutional capitals*. However, the results of the analyses showed that the natural capital was not a prominent theme; instead, more focus has been put on (1) how Aceh has been transforming into a resilient destination, and (2) the influence of local culture during the development process. As a result, the revised coding scheme (Table 3) removed the theme of *natural capital* and added the new themes of *destination resilience* and *local cultural influences*. Furthermore, classic content analysis was then used to identify the major themes. Following the suggestion provided by Onwuegbuzie, Dickinson, Leech, and Zoran (2009), the current study first divided the data into small units, and codes were assigned to each unit. Based on the coding scheme, the codes were grouped into themes. The researchers discussed, reviewed, and clarified the themes. Finally, the researchers created a list of themes, supplemented with detailed descriptions and quotes extracted from the data.

4. Findings and discussion

4.1. Tsunami tourism development and Aceh's sustainable livelihoods

Guided by the SLFT, this study tried to understand the impacts of tsunami tourism on local communities' livelihoods in Aceh. The results revealed five themes, suggesting that tsunami tourism has not only been used as a livelihood strategy for Aceh to recover, but also exerted impacts on community assets, including (a) *economic capital*, (b) *human capital*, (c) *social capital*, and (d) *institutional capital*.

Economic capital is defined as "the basic infrastructure, produce goods, and financial resources that people use to achieve their

livelihoods" (Shen et al., 2008, p. 10) and includes both financial and physical capitals. At an individual level, the economic benefits residents have received from tsunami tourism are highly noticeable and often referenced as '*sustainable incomes.*' At a collective level, many participants recognized the positive economic impacts brought by tsunami tourism for the community. As one of the participants commented, "*The impacts are on the local economy, the local area. So, there are so many tsunami sites nowadays; it helps to add incomes for the local communities.*" Interestingly, most of the comments focused on the positive aspects of the economic impact, while negative consequences such as economic leakages were seldom mentioned. This may be explained by the fact that the tsunami tourism project in Aceh is part of the disaster relief and is completely operated from an independent party Rehabilitation and Reconstruction Agency of Aceh and Nias (BRR). Different from most traditional tourism development project, the BRR has assured transparency and stuck to sustainable principles.

Physical capital is another valuable perspective of economic capital, and it mainly concerns the infrastructure and the built environment. In fact, the outcomes of tsunami tourism development in Aceh are highly intangible. The tourism products include the relics of tsunami, museums, and monuments, all of which have been packaged as attractions and feature the tsunami theme. Many of the interviewees were well aware of these changes, and some of them even followed the progress closely. Their keen awareness is well reflected in the following quote:

The Museum opened for the first time in 2009. Yes, it was the first time … it was built in … 2007 … was ready in 2008, and opened in 2009 … At the first opening, there was still not much maintenance … then the contents were not yet available, there are still many empty spaces … but at the time, it is because of the Acehnese people request, "What is that building? How big it is, but why it does … have not opened?", so it was opened at that time. After that, in 2010, this was renovated and filled up with contents. In May 2011, after that, it was re-opened to the public …

Human xapital involves people's skills, knowledge, and ability, all of which can help residents to pursue livelihood strategies and achieve livelihood objectives (Serrat, 2017). With the assistance from other countries and NGOs, residents in Aceh have received long-lasting support to 'rebuild Aceh from the destruction,' 'recover the economy,' 'improve political stability,' and 'bounce back through developing tourism.' Many participants have benefited from the process, including 'gaining knowledge,' 'building capacity,' and 'obtaining life skills.' Some of them also have learned how to use tourism as a non-traditional but sustainable livelihood strategy. As one participant in the industry professional group (Group 5) explained:

We created our own tourism business … and I think I will not stop just here, so … let's say, if today, I, for example, have a travel company … why don't I think ahead? I will have a concept of selling souvenirs or merchandise that support the tourism sector itself. Or maybe down the line, I could make a transportation system for the

Table 3
Coding scheme.

Theme	Definition	Example Quotes
Economic Capital	Economic benefits resulting from developing post-disaster tourism	"In the economic context, particularly for those who act as actors, they will get the benefits, benefits from the disaster … on the concept of that disaster tourism … through the establishment of various tourism businesses"
Human Capital	Residents' improvement in skills, knowledge, and experiences resulting from post-disaster tourism development.	"We continue to do the interactions of international and international collaboration, knowledge transfer, capacity building, life skills, so we think if Aceh must stand up again."
Social Capital	Residents' shared sense of identity, understanding, norms, and values associated with post-disaster tourism.	"And this does not exist in other countries, that we have a tsunami museum, so what does that mean? It means, Aceh in the context of the tsunami, has given significant commercial value compared with other countries, which the other countries do not have it."
Institutional Capital	Local people's access to the tourism market, their sharing-benefits associated with post-disaster tourism, as well as their participation in the development process of post-disaster tourism	"We are proud of this, from the tsunami, we tried to take a lesson as much as possible, not only in the sociocultural context, what I said earlier … make it as a learning medium, a reminder of the past to cope with disasters in the future, so that we know and become much smarter, what should we do when a disaster occurs, such as a tsunami."
Resilient Destination	How Aceh has been transferring into a resilient destination	"We want to share our disaster experiences with foreign tourists. How we live, how we survive, how we build ourselves, and how we are appreciated by the international community. Secondly, we want to convey a message to the international community, especially to the tourists. We are a grateful nation."
Local Cultural Influence	The impact of local culture, religion in particular, on residents' interpretation of the disaster as well as their perception toward post-disaster tourism.	"We should not be too pretentious. Yet, according to Islamic principles, like we do not necessarily have it made from the marble, or other exaggerated things, just principally its symbols do not easily disappear and clearly written …"

tourism sector, or next if there might be an investment, so that we could open a hotel, then open a restaurant, and so on or a new tourist spot. So, (we) do not stop at … at this point.

Social Capital refers to the social resources upon which residents/communities can rely to pursue livelihood objectives (Shen et al., 2008). In a broader context, the value of social capital lies in social networks and bonding (Dekker & Uslaner, 2003). Tsunami tourism has bridged the gap between visitors and residents. One respondent that was not involved in tourism (Group 6) expressed his/her feeling, stating that 'we can feel the sympathy from the visitors to those, who we call the survivors.' For others who were part of the tourism industry, they were 'basically happy people come here' and 'ask the story.' The bonding was

so strong that some respondents were happy to see the visitors are 'more than having fun,' actively 'learned about their stories,' and even 'form worship to God and to remember the dead.' Just as one interviewee described, 'the tsunami that happened in Aceh was not a lesson for the people of Aceh only, but also the people of the world.' These quotes explicated how tsunami tourism created a connection between visitors and residents as well as promoted cross-cultural understanding between them (Weaver & Lawton, 2007).

Additionally, Cox and Perry (2011, p.396) suggest that social bonding is an essential dimension of social capital, where there would be "a sense of belonging, a sense of community, and place attachment." In a similar fashion, we noticed that some participants, especially those involved in the tourism business (Groups 1–3), tended to attach an exceptional value to tsunami tourism and addressed its uniqueness. As one of them commented, 'No other regions like us – we have a tsunami museum.' In the same vein, another participant stated, 'When we speak about a tsunami, they immediately think of Aceh. … Well, this is called a blessing in disguise … ' Some participants even took a step further, insisting that tsunami tourism 'has become our (Aceh's) new brand.' The increasing recognition of tsunami tourism has also been transferred into a strong identity as well as proud among residents, regardless of their involvement in tourism. For example, a participant from the uninvolved group (Group 6) had expressed his/her feeling toward tsunami tourism, saying that:

For us, it would always be 2004 symbolic reminders, and we are proud that today, we have a tsunami museum, and of course through the tsunami museum, it becomes a symbol of strength, a symbol of patience, a symbol of resistance or resilience of Acehnese society in the face of disaster … The tsunami museum is also functioned as a mode of mitigation, education, leisure … Most importantly, through the tsunami museum, we could convey the messages … like showing hopes, civic pride, and the most important thing is to show global human spirit for the people of Aceh and the people outside of Aceh …

Furthermore, unlike economic capital where most attention was paid to the positive side, some residents were conservative toward developing post-disaster tourism. For example, a small number of participants were uncomfortable about transferring the disaster and their suffering into tourist attractions. As one participant commented, 'This tragedy is already an international disaster … For other people too … it was not really a good way to create a (mass) grave in the village.' These thoughts are primarily consistent with the long-lasting argument in dark tourism research, suggesting that some residents prefer to live a quiet existence and cannot accept death being presented as 'entertainment.' (Chen, Wang, & Xu, 2017). However, this does not mean that residents held a hostile attitude toward tsunami tourism; in fact, some participants suggest that; memory tourism' appears to be a more appropriate term for Aceh. One respondent explained, 'over time, as more people in Aceh and outside of Aceh have seen the positive sides of tsunami tourism, we tried to change the terms – we used 'memory tourism'– it becomes a term that is softer and more comfortable.'

Institutional Capital is a newly added construct in the SLFT and is pertinent to residents/local communities' access to the policy-making process, the tourism markets, as well as the tourism benefits (Shen et al., 2008). Most participants genuinely believed that developing post-disaster tourism can provide Aceh with a unique opportunity to recover, renew, and revive. As one member in the government official group (Group 1) stated, 'We think if Aceh must stand up again – the Tsunami event should be a chance to turn from massive human tragedy into opportunities through sustainable tourism.' Although developing post-disaster tourism in Aceh employs a top-down approach, most residents, as reported by the participants, are still able to 'get the benefits' through 'the establishment of various tourism business.' Another benefit shared by the local community involves the 'recreational function' of the newly built sites where residents can also visit and enjoy. For instance, one participant commented, 'The Aceh Tsunami Museum has three functions: it is a medium of education, a medium for recreation, and a

medium for disaster mitigation.' The popularity of these sites among the local population can be due to the fact that the community's interests and preferences were considered when developing these attractions such as the Aceh Tsunami Museum (Miles, 2002). Such a human-centered approach also helps preventing some negative impacts disaster tourism may have on locals. Lastly, the discussion here also reflected that a community-led initiative is embedded in tsunami tourism development. A community-based approach is essential in post-disaster tourism development, as it considers local needs, stays aligned with the concept of 'building back better,' and dramatically contributes to community resilience (Lin et al., 2017).

4.2. Toward a resilient destination

Another emerging theme from data analysis was *destination resilience*. Resilience is generally understood as a system's capacity of absorbing disturbance and bouncing back to the regular aftershocks (Hall, Malinen, Vosslamber, & Wordsworth, 2016). The critical element in building destination resilience involves adaptiveness, which includes immediate responses as well as the adjustment and adaption following the crisis (Pike, Dawley, & Tomaney, 2010). Consistently, many participants mentioned the direct support they received in the aftermath of the Indian Ocean tsunami, mainly through the campaign "Build Aceh Back Better." From a long-term perspective, we noticed the increasing awareness and readiness toward natural disasters among the residents, which probably results from their consumption of and involvement with tsunami tourism. As one interviewee stated, 'if in the future, tsunami occurs, we will be ready. The public was educated, and people understood evacuation techniques. Now they care about disasters and are getting familiar with the disasters. We will always be ready.'

In addition to the preparedness, the residents have undertaken an active role in sharing information and disaster knowledge with incoming visitors. One participant in the industry group expressed her thoughts, stating that 'We want to share our experience, as people who suffered from the disaster and faced the disaster directly, with tourists that have never known anything about the disaster.' It is their sincere hope that visitors can 'know how to cope with disasters for the foreseeable future' and to 'educate the general public so that if similar disasters occur, actions can be taken early.' The quotes here best exemplify how a local knowledge-based approach can be embedded in post-disaster tourism development, which in turn, enhances the local communities' adaptiveness to future shocks and resilience.

Interestingly, some participants indicated their involvement in tsunami tourism allowed them to 'feel the peace in mind,' 'convey the moral messages,' and 'achieve a goal in life.' One interviewee further explained the mental benefits of tsunami tourism, 'I feel strong, I feel my life is useful for others. From my experience with the tsunami, I can give them a message – If we can still do go things under such circumstances, we should never procrastinate.' All these quotes suggest that most residents have adapted to reality and are equipped with a positive attitude. This aligns well with the definition of individual resilience, which was understood as the "capacity that allows individuals to deal with and adjust positively to adversity" (Hall, 2017, p. 62). This can be an essential element in building destination resilience, considering the importance of local residents in tourism development and the potential negative impacts associated with post-disaster tourism. Furthermore, we noticed that some participants projected their intentional feelings as a form of collective identity. They regarded post-disaster tourism not only as a reminder for their surviving, but also symbols of Acehnese strength, persistence, and pride. As one of them explained:

I am proud to be an Acehnese, one of the living witnesses. I feel the responsibility, especially with my knowledge, my capacity, and my experience. I have to create the concepts, so the Acehnese can open themselves to rise up and build Aceh through tourism.

4.3. Local cultural influences

Culture is defined as "the collective programming of the mind which distinguishes the members of one category of people from another" (Hostede, 1984, p. 51). Throughout the analysis, it was noticed that culture shaped residents' perception of post-disaster tourism, which is manifested through the effects of religion. Islam is the dominant religion in Aceh, where over 98% of the population are identified as Muslims. Therefore, the influence of local culture is closely tied to their religious beliefs and values. For example, some residents followed the traditions and tended to define as 'conventional' and often associated it with 'fun' and 'pleasure.' The development of tsunami tourism, however, has changed their opinions, making them realized that tourism could move beyond 'the beauty of nature' and 'get something that is valuable for visitors,' such as 'inner satisfaction' and 'worship to God (Ibadah).' The participant further described the transformation in the following quote:

When we first try to initiate the concept of tourism, it is contradictory. Some tourism people said, 'No way,' because tourism is about … pardon me to say, sex, drinking, and so on. This is the only picture of tourism for a long time. We have the concept of tsunami tourism and all sorts of plans. We practiced this in the field where we guided guests and did the promotion. Finally, today people accepted it – this concept is easy, simple, and people all love it.

In the same vein, some participants considered the occurrence of tsunami is out of 'God's purpose' and serves a form of 'admonishment.' Therefore, they would need to 'learn from the tsunami,' 'change themselves,' and 'carry on their life.' Thus, involving in tsunami tourism not only offers them a sustainable livelihood strategy, but also provides a path of spiritual advancement. Some participants feel their lives are more 'meaningful' and 'peaceful' because they are an active part of the tourism activities and are able to share their disaster knowledge with others. Notably, one of the interviewees suggests that tsunami tourism represents 'Acehnese' acceptance of what God has decreed form them,' including the event of a tsunami and the opportunity to re-developing tourism. As further explained:

God cares about us … This whole thing is an ordeal, maybe because something was wrong with Aceh in the sight of God and God needed to test us. If this was our test, it means God still care s about us. So from there, most Acehnese can quickly relive the trauma and recover from the disaster.

For some participants, their decisions of being involved in post-disaster tourism are motived by their 'devotion to God' rather than economic needs. Consequently, they don't simply label themselves as 'official employees,' instead, they refer themselves to 'life witnesses.' They believed that their work here is 'notable and honorable' and that they have 'capacity to related their stories with the tsunami site.' One interviewee emphasized that the main reason he chose to work at the attraction deals with the admiration and respect he/she received from the locals who live close to the sites.

5. Conclusion

Similar to many other destinations, Indonesia has experienced a wide variety of natural disasters, ranging from earthquakes and tsunamis, to droughts and floods. Upon the completion of this study, another tsunami struck parts of western Indonesia in December 2018, causing at least 222 deaths and hundreds more injured and missing (CNN News, 2018). As unfortunate as these events are, it becomes especially significant to explore what would be the best way to assist destinations in surviving, recovering, and reviving in the aftermath of a major disaster. Guided by the SLFT, this study interviewed different local stakeholders of Aceh and revealed the unexplored side of their stories after the 2004 tsunami. The reconstruction and post-disaster tourism development in Aceh has added new attractions to the destination as well as led to changes in its social structure.The development of tsunami tourism in Aceh not only has influenced the economic, human, social, and institutional capital

assets of the community, but also has enhanced residents' and the community's adaptiveness, both of which are essential elements of destination resilience. The results also showed that local culture and religion play a critical role in this process, where it affected residents' interpretation of the disaster event, their perception of tsunami tourism, and even their decisions in participating in tourism during the recovery phase.

From a theoretical perspective, this study provided empirical support to the pragmatic utility of SLFT in a post-disaster tourism context. Consistent with the original assumptions (Shen et al., 2008), the findings confirmed that the development of tsunami tourism has affected the community assets in terms of economic, human, social, and institutional capitals. Notably, the findings of this study outlined two factors that have not been frequently discussed in the previous literature – one relates to the influence of local culture and religion, and the other deals with destination resilience. Sustainable tourism development is critical to the preservation of indigenous culture, and the findings of this study showed that local culture and religion not only affected residents' attitude and perception toward tourism development, but also can act as a motivator for their involvement. When it comes to destination resilience, it becomes apparent that residents' and the community's ability to respond and manage shocks is essential to building resilience. There is thus a need to adopt a community participatory approach in the current context, where the socio-cultural features for post-disaster tourism development projects should be fully taken into account (Tosun, 2000, 2005). Policy supports and a balance between the public sector, private entities, and local communities should also be addressed (Tosun, 2006).

From a practical perspective, the findings of the study showed that post-disaster tourism can be used more than a livelihood strategy, it is highly consistent with the concept of 'building back better' and serves a form of resilience for residents and the community. Through their involvement with and/or observation of tsunami tourism, the residents were able to learn more about the coping strategies and improve their ability to manage the stress. The local culture and religion also play a critical role as it helps to bring out and highlight the spiritual aspects, which is significant to their adaptiveness. This is further translated into a stronger level of community resilience. Within the discussion related to institutional capitals, particularly, the importance of a community-led initiative is stressed, and this has received increasing attention in the literature over the past few years (Lin et al., 2017; Tosun, 2000, 2005). Community participation is essential in tourism development and is based upon the community needs, resources, and collective decisions (Tosun, 2000, 2005, 2006). Aceh's lack of community participation in tsunami tourism development is partly due to its institutional arraignment, where a top-down approach was used to develop tsunami tourism, and the local government is mainly responsible for the initiative and the management of all the related efforts. Given the significance and benefits of tsunami tourism, Aceh should embrace the participatory community paradigm and maximize the positive impacts brought by tourism development. The potential of community participation as an initiative for destination recovery should also be acknowledged and addressed.

Lastly, although this study has achieved its aims, there are some limitations. First, all interviews were translated into English and then analyzed. Although a triangulation process was employed, the interpretation of the findings might be impacted. Second, during the focus-group interview, some participants' opinions may have been affected by the group dynamic and other commons, which may lead to biased results. Future research should replicate this study in different contexts and destinations, testing the extended SLFT and its validity. Third, the findings of this study outline the importance of local culture and religion, which has not been explored in-depth in the past. Future studies can thus adopt a culture-based approach and investigate how local culture may affect post-disaster tourism development. Forth, considering that the recovery time from natural disasters varies, more longitude perspectives should be enhanced in case studies, where the entire development process can be reviewed and analyzed compressively.

Fifth, this study used focus group interviews, which may be limited in terms of their ability to generalize the findings to the entire population. Future studies can thus employ a large-scale survey and a probability sampling method, both of which can assure the external validity of the findings. Sixth, emerging health issues such as outbarks of SARS and COVID-19 are also examples of natural phenomena, but this study tended to focus on natural/environmental-related disasters such as tsunami. Future studies can extend the application of SLFT to explore the recovery process from different natural disasters.

CRediT authorship contribution statement

Bingjie Liu-Lastres: Conceptualization, Validation, Writing - original draft. **Dini Mariska:** Methodology, Investigation. **Xiaoyuan Tan:** Data curation, Validation. **Tianyu Ying:** Supervision, Writing - review & editing.

Appendix

Semi-structured interview questions for focus group discussion
1) Could you please briefly introduce yourself?
2) What is your current role with tsunami tourism in Aceh?
3) Could you share with us your tsunami experience?
   a) Where were you at the time of the tsunami?
   b) How did the tsunami impact your life?
4) What do you think of the tsunami tourism development in Aceh?
   a) Has the development of tsunami tourism impacted you?
   b) What are the obstacles and challenges for your involvement in tsunami tourism?
   c) Do you think these projects are for tourism only?
   d) Have you seen any downside of these tsunami tourism projects?
   e) Do you see the purpose of tsunami tourism development and the purpose of your involvement?
5) Can you tell more about tsunami tourism development in Aceh? What is the initial plan?
6) How do you feel about visitors coming in now? Are there any messages you want to convey to the visitors?

References

Antara News. (2019). *Indonesia received over 1.35 million foreign tourists in October 2019.* Retrieved 17.05.2019. from: https://en.antaranews.com/news/137488/indonesia-received-over-135-million-foreign-tourists-in-october-2019.

Aceh Government. (2014). *Aceh government.* N.A.

Arce, A. (2003). Value contestations in development interventions: Community development and sustainable livelihoods approaches. *Community Development Journal, 38*(3), 199–212.

Biggs, D., Hall, C. M., & Stoeckl, N. (2012). The resilience of formal and informal tourism enterprises to disasters: Reef tourism in Phuket, Thailand. *Journal of Sustainable Tourism, 20*(5), 645–665.

Biran, A., Liu, W., Li, G., & Eichhorn, V. (2014). Consuming post-disaster destinations: The case of Sichuan, China. *Annals of Tourism Research, 47*, 1–17.

Brocklesby, M. A., & Fisher, E. (2003). Community development in sustainable livelihoods approaches: An introduction. *Community Development Journal, 38*(3), 185–198.

Chen, S., Wang, S., & Xu, H. (2017). Influence of place identity on residents' attitudes to dark tourism. *Journal of China Tourism Research, 13*(4), 338–356.

CNN News. (2018). *Tsunami in Indonesia kills at least 222 without warning.* https://www.cnn.com/2018/12/22/asia/deadly-tsunami-indonesia/index.html. (Accessed 17 May 2019).

Coats, A., & Ferguson, S. (2013). Rubbernecking or rejuvenation: Post earthquake perceptions and the implications for business practice in a dark tourism context. *Journal of Research for Consumers, 23*(1), 32–65.

Cox, R. S., & Perry, K. M. E. (2011). Like a fish out of water: Reconsidering disaster recovery and the role of place and social capital in community disaster resilience. *American Journal of Community Psychology, 48*(3–4), 395–411.

Dekker, P., & Uslaner, E. M. (2003). *Social capital and participation in everyday life.* Routledge.

Faulkner, B. (2001). Towards a framework for tourism disaster management. *Tourism Management, 22*(2), 135–147.

Gibbs, A. (1997). Focus groups. *Social Research Update, 19*(8), 1–8.

Guest, G., Namey, E., & McKenna, K. (2017). How many focus groups are enough? Building an evidence base for nonprobability sample sizes. *Field Methods, 29*(1), 3–22.

Hall, C. M. (2017). Resilience in tourism: Development, theory, and application. In Joseph M. Cheer, & Alan A. Lew (Eds.), *Tourism, Resilience and Sustainability*. Routledge.

Hall, C. M., Malinen, S., Vosslamber, R., & Wordsworth, R. (2016). *Business and post-disaster management: Business, organisational and consumer resilience and the Christchurch earthquakes*. Abingdon: Routledge.

Heger, M. P., & Neumayer, E. (2019). The impact of the Indian Ocean tsunami on Aceh's long-term economic growth. *Journal of Development Economics, 141*, 1–17.

Helmore, K., & Singh, N. (2001). *Sustainable livelihoods: Building on the wealth of the poor*. Bloomfield, CT: Kumarian Press.

Hofstede, G. (1984). National cultures and corporate cultures. In L. A. Samovar, & R. E. Porter (Eds.), *Communication between cultures*. Belmont, CA: Wadsworth.

Jauhola, M. (2013). *Post-tsunami reconstruction in Indonesia: Negotiating normativity through gender mainstreaming initiatives in Aceh*. London: Routledge.

Krantz, L. (2001). *The Sustainable Livelihood Approach to poverty reduction: An introduction*. Stockholm: Swedish International Development Cooperation Agency.

Kurien, J. (2017). Collective action and co-management initiatives in post-disaster Aceh, Indonesia. *Maritime Studies, 16*(1), 1–21.

Lennon, J., & Foley, M. (2000). *Dark tourism: The attractions of death and disaster*. London: Thomson.

Liew, S. C., Gupta, A., Wong, P. P., & Kwoh, L. K. (2010). Recovery from a large tsunami mapped over time: The Aceh coast, Sumatra. *Geomorphology, 114*(4), 520–529.

Lin, Y., Kelemen, M., & Kiyomiya, T. (2017). The role of community leadership in disaster recovery projects: Tsunami lessons from Japan. *International Journal of Project Management, 35*(5), 913–924.

Matarrita-Cascante, D., Brennan, M. A., & Luloff, A. E. (2010). Community agency and sustainable tourism development: The case of La Fortuna, Costa Rica. *Journal of Sustainable Tourism, 18*(6), 735–756.

Miles, W. F. (2002). Auschwitz: Museum interpretation and darker tourism. *Annals of Tourism Research, 29*(4), 1175–1178.

Miller, S. D. (2008). Disaster tourism and disaster landscape attractions after Hurricane Katrina: An auto-ethnographic journey. *International Journal of Culture, Tourism and Hospitality Research, 2*(2), 115–131.

Nazaruddin, D. A., & Sulaiman, R. (2013). Introduction to "TSUNAMI TOURISM": Notes from Aceh, Indonesia. *International Journal of Sciences, 2*(Mar), 71–81.

Onwuegbuzie, A. J., Dickinson, W. B., Leech, N. L., & Zoran, A. G. (2009). A qualitative framework for collecting and analyzing data in focus group research. *International Journal of Qualitative Methods, 8*(3), 1–21.

Organization for Economic Co-operation and Development. (2019). *Economic survey of Indonesia*. http://www.oecd.org/economy/bycountry/indonesia/. (Accessed 17 May 2019).

Parker, A., & Tritter, J. (2006). Focus group method and methodology: Current practice and recent debate. *International Journal of Research and Method in Education, 29*(1), 23–37.

Pike, A., Dawley, S., & Tomaney, J. (2010). Resilience, adaptation and adaptability. *Cambridge Journal of Regions, Economy and Society, 3*(1), 59–70.

Prayag, G. (2016). It's not all dark!: Christchurch residents' emotions and coping strategies with dark tourism sites. In C. M. Hall, S. Malinen, R. Vosslamber, & R. Wordsworth (Eds.), *Business and post-disaster management* (pp. 155–166). Oxford: Routledge.

Scoones, I. (1998). Sustainable rural livelihoods: A framework for analysis. https://opendocs.ids.ac.uk/.

Serrat, O. (2017). *The sustainable livelihoods approach*. Manila, Philippines: Asian Development Bank.

Sharpley, R. (2009). Dark tourism and political ideology: Towards a governance model. In R. Sharpley, & P. R. Stone (Eds.), *The darker side of travel: The theory and practice of dark tourism: Aspects of tourism* (pp. 145–163). Bristol: Channel View.

Shen, F., Hughey, K. F., & Simmons, D. G. (2008). Connecting the sustainable livelihoods approach and tourism: A review of the literature. *Journal of Hospitality and Tourism Management, 15*(1), 19–31.

Su, M. M., Wall, G., Wang, Y., & Jin, M. (2019). Livelihood sustainability in a rural tourism destination: Hetu town, anhui province, China. *Tourism Management, 71*, 272–281.

Su, M. M., Wall, G., & Xu, K. (2016). Heritage tourism and livelihood sustainability of a resettled rural community: Mount Sanqingshan World Heritage Site, China. *Journal of Sustainable Tourism, 24*(5), 735–757.

Tao, T. C., & Wall, G. (2009). Tourism as a sustainable livelihood strategy. *Tourism Management, 30*(1), 90–98.

Thorburn, C. (2009). Livelihood recovery in the wake of the tsunami in Aceh. *Bulletin of Indonesian Economic Studies, 45*(1), 85–105.

Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism Management, 21*(6), 613–633.

Tosun, C. (2005). Stages in the emergence of a participatory tourism development approach in the developing world. *Geoforum, 36*(3), 333–352.

Tosun, C. (2006). Expected nature of community participation in tourism development. *Tourism Management, 27*(3), 493–504.

Tucker, H., Shelton, E. J., & Bae, H. (2017). Post-disaster tourism: Towards a tourism of transition. *Tourist Studies, 17*(3), 306–327.

Weaver, D. B., & Lawton, L. J. (2007). 'Just because it's gone doesn't mean it isn't there anymore': Planning for attraction residuality. *Tourism Management, 28*(1), 108–117.

World Tourism Organization UNWTO. (2005). *UN agency seeks to boost tourism to tsunami-hit nations*. https://news.un.org/en/story/2005/03/130402-un-agency-seeks-boost-tourism-tsunami-hit-nations. (Accessed 17 May 2019).

World Tourism and Travel Council WTTC. (2019). *Crisis readiness*. https://www.wttc.org/-/media/files/reports/2019.