Assessing the cultural state after the disaster as a driver for sustainable development

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Abstract. In disaster situations, physical buildings and infrastructures can be damaged or destroyed, including the community's livelihood, yet generally, the cultural structures that shaped the settlements persist. However, local cultural values have been commonly ignored in a post-disaster intervention. It creates conflict, which results in improper development practice that contributes to the weak sustainability outcomes. Using the Aceh tsunami disaster as a case study, this study examines how far the community recognises their cultural values after the disaster. It argues that culture is a potential resource that is significant for community building. Thus, assessing the cultural state of the affected community is vital to be carried out for the longer term of sustainability of the new development. The study relied on a qualitative approach as the primary methodology. The data was collected through a series of fieldwork, which involved in-depth interviews and site observations. It was supported by desk research to gather related statistical information and literature. The study targeted all levels of the community ranging from young people, elderly, key persons (such as the head of the village and religious leaders), male and female, educated, and uneducated people. The desk research was conducted to get the overview and background information regarding the history of the places, significant values, profile of the areas, and the statistical data. Both tangible (such as substantial buildings, monuments, and sites) and intangible aspects, including everyday life, cultural interaction, and traditional practices were assessed. The study covered the area of Banda Aceh city and part of Aceh Besar district. Both were the devastated areas hit by the tsunami disaster of 26th December 2004. Studies on the importance of culture for sustainable development have been carried out; however, this study will be different since it focuses on sustainable development in the context of post-disaster, which was not commonly studied. The results of this study offer a lesson learned and provide a recommendation for the planning of sustainable development after a disaster. It may also contribute to the development studies and practices in general.

Keywords: culture, sustainable development, disaster, Aceh, tsunami

1. Introduction

In a crisis, particularly the natural disasters, physical buildings, and infrastructures can be damaged or destroyed, including the livelihood of the communities, yet the cultural structures that shaped the community usually persist. It proves the important role of the culture for society. According to
UNESCO, Culture is 'who we are and what shapes our identity' [1,2]. It is reflected in the way of life of the people that distinguish society from others [3]. Furthermore, Lawanda [4] stated that national characters, territories, and nations are expressed through culture. Therefore, culture is part and cannot be separated from the community itself.

The disaster responses and resilience processes are very much influenced by cultural factors [5]. The survivors' ability to manage the disaster is also affected by the cultural condition of the affected community [6]. Meanwhile, in their report, the United Nations highlighted that culture is one of the essential elements that should be recognized in post-disaster responses [2]. However, local cultural values have been commonly ignored in the post-disaster intervention. Most of the interventions focused on physical reconstruction, environmental, and social-economy rehabilitation. This ignorance has created conflicts that resulted in inadequate development practice that contributes to weak sustainability outcomes. The processes of disaster recovery that were not based on the culture and values will be less sustained and low resilience [7]. To ensure the outcomes will sustainable, culture must be put as the core element in the development process [1,3,8,9] along with other dimensions, including social, economic, and environment [10]. Culture is a key driver, enabler, and enricher, to achieve longer-term sustainable development [11,12]. At the same time, it is also a key factor to define the failure or success of the development programs [13].

Using the Aceh tsunami disaster as a case study, this study examines how far the community recognises their cultural values after the disaster. It argues that cultural values are potential resources that are significant for community building. People need to be returned to their cultural characteristics and identities to develop sustainable communities [14,15]. Thus, assessing the cultural condition of the affected community is vital to be carried out for the longer term of sustainability of the new development. Studies on the importance of culture for sustainable development have been carried out. However, this study will be different since it is focused on sustainable development in the context of post-disaster, which was not commonly studied. The Aceh tsunami demonstrates that cultural structures that shaped the community remained intact regardless of the physical environment damages and social-economy disruptions caused by the disaster. This state should be considered as a potential aspect of the recovery after a disaster.

2. Case study

Aceh is one of Indonesia’s provinces located in the northern tip of Sumatra Island, the 3rd out of 5 most prominent islands in the Indonesian archipelago (figure 1). It has a very strategic location which connects the Indian Ocean, the Red Sea, and the Persian Gulf. Due to this potential location, Aceh has become the main intersection of international connections since centuries ago. The trading emporium started when the Arab, Indian and Chinese merchants visited the coast of Aceh around 500 A.D. [16]. Aceh was also the first entry point of Islam that later spread all over the Indonesia archipelago by the Acehnese pilgrims and traders [16]. That is why this region is known as Serambi Makkah or (the Balcony of Mecca). This history gives much influence in shaping the unique characteristics of culture that distinguish it from other regions in Indonesia. It enriches the local wisdom and values of the Acehnese. These values are reflected in both the tangible and intangible daily life of the Acehnese. Aceh has its traditional ideology and distinctive culture to control the lives of its people. That is, "Hukom ngon adat lagee zat ngon sife" (rule and culture/custom fully integrate each other and cannot be separated at all, like human beings and their attitudes). Aceh also has several unique cultures that are reflected in the traditional layout of the villages, customary landscape arrangements, local organisations/institutions, political systems, community relationship structures, and arts. They also apply the gotong royong (mutual cooperation) in the community. Those values have formed, embodied as the identity of Acehnese as a whole.
The Indian Ocean earthquake and tsunami disaster of 26th December 2004 has damaged most of the infrastructure, property, and natural environment of Aceh province. Aceh needs to be redeveloped, and many aspects have to be considered in this process, including culture.

3. Methodology
The study relied on a qualitative approach as the primary methodology. The data was collected through a series of fieldwork, including in-depth interviews and site observations, to get specific and broad trends (soft and hard data). It was supported by the desk research to get an overview and background information regarding the history of the places, significant values, profile of the areas, statistical data, and literature. The desk research was carried out mainly before the survey started and during the data analysing period. Furthermore, the photographs, voice records, and written notes were produced as part of the documentation outcomes from the site observations. Photograph documentation was aimed to get the physical records of the sites such as historical buildings and monuments. Meanwhile, the voice records were collected as a back-up for the note-taking of the interviews. This study targeted all levels of the community ranging from young people to elderly, key persons such as the head of the village or religious leaders, women and men, educated and uneducated people.

The data collection covered the area Banda Aceh city and part of Aceh Besar district. Both were the devastated areas hit by the tsunami of 26th December 2004. The disaster affected 14 districts in total for the whole province, 4 out of them (Banda Aceh, Aceh Besar, Nagan Raya, and West Aceh) were the most devastating ones. Banda Aceh is the largest city as well as the provincial capital of Aceh, while Aceh Besar is located in the northeast part of the Aceh region (figure 2). Nine (9) main areas that represented unique characteristics in terms of cultural aspects have been chosen. For example, the areas that significance in its heritage sites/archaeological sites; the areas with a strong daily life of traditional Acehnese culture where most of the community members work as fishermen or farmers; the historic city port areas; the producer areas of local dishes and traditional foods; and the areas that have strong local arts, dances, traditional handicrafts, music, and instruments.
The study focused on tangible and intangible cultural aspects as well as the general issues such as the main characteristics of the areas; the sense of connection to the area; implications of the new development towards the way of life, livelihood, and cultural interactions. Meanwhile, the tangible issues covered the aspects of the main physical characteristics of the areas such as old buildings and historical monuments. It also included the importance value of monuments for the community and the community's sense of belonging to those monuments. Furthermore, the intangible issues covered the aspect of everyday life and the changes after the disaster, the values of cultural interactions/relations within the family and community, the condition of traditional livelihood and traditional practices after the disaster, and the intention of the community to preserve their culture.

This study has limitations such as the number of respondents, the coverage areas, and the limitation of the materials/references available due to much literature lost in the disasters, particularly the document/literature needed for the desk research.

4. Findings and discussion

4.1. Main characteristics of the area
All the surveyed locations in this study have their characteristics, such as specific trees, monuments, or historical values. Peulanggahan village, for example. In the local language, Peulanggahan means 'transit point.' This area was used as a transit for the hajj pilgrims in the past. Another village was named Lampisang, referring to the specific tree 'Pisang' (banana) since this area was famous as a producer of bananas. Moreover, Gampong Jawa or Javanese village was named because the majority of the inhabitants are descendants of migrants from Java Island.

4.2. Sense of the connection to the area
Most of the survivors decided to return to their villages after the disaster and started a new life again. Two main reasons why they chose this decision. First, due to the sense of connection to their village, and second, because they did not have any other options as they only possess the land in their village. Some of them confessed they were still traumatized and afraid of the possible disasters in the future. However, the majority of them showed no fear as they think the disaster is God's message that they have to accept. This group used religious beliefs to cope with their anxiety. Another reason was related to the culture of the livelihood of the community. For example, the fishermen group claimed that they had to
go back to their village because it was close to the sea. They refused to move to the relocation areas, which were far away from their livelihood resources. In addition, the strong relationship among the community members also became one of the reasons for their return. In Lambadek village, for instance, even though a quite significant physical change occurred, the community was fine to return to their village. They will not leave their village since they feel connected to the land. They planned to redevelop their village gradually. They were also not afraid of the possibility of another tsunami in the future.

4.3. Implications of the way of life, livelihood, and cultural interactions
Some survivors changed their jobs after the disaster. Construction work was the most common new job for them. The high demand for construction projects during the post-disaster reconstruction phase provided more opportunities for the local people. Furthermore, 90% of survivors said that their area indeed physically changed after the disaster; however, their cultural values and interactions remained intact. They have the intention to preserve it for the next generations. Moreover, although the number of community members decreased after the disaster, they were still able to conduct their rituals such as traditional ceremonies, religious activities, and cultural practices.

4.4. Main tangible characteristics of the area
Almost all the locations covered in this study have unique tangible characteristics such as old historic graveyards and the monumental buildings like fortresses or mosques. There were also some colonial remains like residential buildings, colonial cemeteries, or monuments. In addition, most of the tsunami-affected areas have mass graveyards for the tsunami victims. The community said it would also become the main tangible characteristic of their area in the future. The community considered the mass graveyard as an important monument to remind them about the tsunami history. Interestingly, this study also found new historical/heritage objects, particularly the old cemeteries. Those objects suddenly appeared from the areas that were covered by mangroves before the tsunami. In general, the community in the surveyed areas knew and familiar with the tangible cultural objects in their village.

4.5. Values of the existence of the monuments and the sense of belonging
The majority of respondents interviewed in this study realised the existence of the heritage sites and monuments in their area. They have a good understanding of the high values of those assets, either historically or culturally. It symbolised their characteristics that make them different from others as well as represent their identity that they are proud of as an Acehnese. In Lamguron village, for instance, the historical mosque from the 17th century named Indrapurwa mosque has a significant role in community life. One of the local leaders from the village, Mr. Sabri (65), said that he believed that Indrapurwa was a valuable and important mosque for their village due to its historical value. Their village has been famous because of this mosque. Another expression came from another community member, Ms. Atinah (57). Although she has no much knowledge about the history of the mosque, she said that she was proud of the Indrapurwa mosque and considered it as part of the important history of the village. The mosque has contributed a distinctive identity for their village. Meanwhile, the community in Lampuuk village were very proud of their Great Mosque as the only building survived from the tsunami. For them, it symbolised the greatness of God. Besides the religious functions, the mosque also played an essential role in the cultural life of the community. It has been used as the gathering point for the cultural interactions between surrounding communities. Some old graveyards from famous Islamic scholars and religious leaders, as well as a Dutch colonial monument, were also found in this area.

4.6. Values of the cultural interaction/relations
Most of the communities involved in this study felt that their cultural interactions or relations within the community were stronger after the disaster. The disaster tightened their bond. Only a few respondents had an opinion that the cultural interactions or relationships between them were weakening. They argued that it was mainly due to the loss of family members, neighbors, and friends. As what was felt by the community in Lamboro Neujid, Peulanggahan, and Gampong Pi. However, they confirmed
that they were still able to perform their regular cultural practices or ceremonies. They were confident the situation would change, and gradually, the relations among the community will improve and back to normal as before the tsunami.

4.7. Condition of the traditional livelihood and local institution
The traditional livelihoods and practices were gradually revived after the disaster. Gampong Pande, as one of the centers of the Acehnese traditional arts and culture performances, especially for traditional dancing, music, and singing, was also trying to revive their activities. The traditional institutions which play an important role in the local affairs, such as the Tuha Peut and Tuha Lapan (village councils) were becoming active again. In Lambadek village, for instance, although the number of the inhabitants decreased after the tsunami, the cultural interactions and relations still existed. The traditional practices such as kenduri gampong (village celebrations), pengajian (communal Quran reading and Islamic studies), gotong royong (mutual cooperation), kemunjung (community visits), and so on were well maintained.

4.8. Intention to preserve the culture
This study found that the community's intention to preserve its history and cultural values was firm. The parents were eager to pass the story of the tsunami to their children and grandchildren. They considered it as an important event that needs to remember. They believe it was part of their history that may shape the identity of their future generations. In Gampong Pande, the young people were quite serious about preserving their arts and culture by learning traditional dances, traditional music instruments, and singing traditional songs. In Lambadek village, even though their modern-styled donated houses were good in terms of the quality, they still felt that the Aceh traditional stilted house style was better. A house with a spacious space underneath that is usually used for daily activities. Cultural practices or festivals within the family members or with the community members also took place here.

4.9. General findings
Most of the reconstruction and rehabilitation programs carried out in the covered areas of this study were housing, road, and infrastructure development, such as bridges and public buildings (hospitals/clinics, schools, etc.). Other public services like water and sanitation programs were also included. While the non-physical assistance, including cultural rehabilitation, was less recognised by the donor agencies involved in the post-disaster reconstruction and rehabilitation of Aceh. In some areas like Ulee Lheeu, there was a cultural rehabilitation program conducted by the Indonesian Red Cross (PMI). The program focused on the revival of traditional foods, dishes, and local handicrafts, but the scale of the program scale was very small. Some donor agencies or NGOs tried to rehabilitate the local culture by adopting the typical Acehnese traditional stilted-house style for their donated houses. However, most of the houses were built with poor quality construction and materials, which resulted in a short-lived building. In addition, it also created problems in terms of health and safety.

This study generally found that cultural practices and ceremonies still existed in community life. The culture regeneration was rolling on from the elderly to the younger generation. The tsunami did not have a significant impact on the cultural condition of the community. The intention of the young people to preserve their cultural heritage was also high. They even stated that they were willing to stay in their village to maintain their cultural identity rather than moving to the big cities to find a better job. Culturally, the communities were satisfied with their new life and proud to be Acehnese. The cultural interactions and relations within the community were still strong. The traditional cultural practices, ceremonies, or occasions were always conducted regularly. Physically, the locations covered in this study were still intact to its original layout. Only a minor change occurred, mainly related to the physical looks of the buildings, which were dominated by the modern-styled donated houses. The old heritage buildings, historical monuments, and traditional-style houses survived from the tsunami were well maintained by the community.
5. Conclusion and recommendation

Aceh tsunami demonstrates how the community revives their life through culture. The cultural structures that shaped the identity of the community remained intact regardless of the physical environment damages and social-economy disruptions caused by the disaster. There is a strong intention from the community to preserve their culture. The communities are proud and respect their culture. They also show that they cannot be separated from their culture even in difficult times, such as after a disaster situation. This state should be considered as a potential aspect of the recovery after a disaster. Culture becomes a critical point for post-disaster redevelopment because it does not only contribute to new development, but at the same time, it also strengthens the pride and identity of the Acehnese. Cultural values are the key driver and enablers to achieving a longer-term sustainable development.

However, a good and strong intention of the community is not enough. Mobilizing culture as part of sustainable development after a disaster should be supported by strategies. This study proposes a few recommendations for that purpose. First, the post-disaster development interventions should support the traditional institutions (such as Tuha Peut and Tuha Lapan or village councils) that play important roles in local affairs of the community, in a framework that is sustainable, inclusive, and sensitive to local values. Second, enhancing the quality of human resources in supporting the cultural value preservation through practical work, training, and other capacity-building activities. Third, engaging more broad stakeholders not only representatives from all levels of the community such as local leaders, religious leaders, and representatives from traditional organisations but also NGOs, academics, youth, women, and elderly groups as well as private sectors, experts from cross-cutting sectors, donor agencies, and the government agencies. This study gives new insight into sustainable development from post-disaster perspectives. It may contribute to the development practice as well as the planning disciplines in general.

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