

Community Development, Local Wisdoms, and Ineffective

Government Aid: The Case of Lombok Post-Disaster House

Reconstruction Project

Mira Ardhya Parmastri

10.22146/globalsouth.63438

Center for Digital Society, Indonesia

mira.ardhya.paramastri@mail.ugm.ac.id

Experience in disasters should have contributed to a country's ability to handle post-disaster complications. However, that is not the case for Indonesia. House reconstruction is one of the main projects striven for in post-disaster condition. Despite claiming to seek the fulfillment of the victim's livelihood, in realization, Indonesia's house reconstruction project is far from effective. Community development principles are integral in the assessment of a development project's effectiveness. Indonesia however, has yet reflected the fulfillment of these principles. This article seeks to understand and explain the reasoning behind Indonesia's house reconstruction project ineffectiveness through human security perspective. This article found that local wisdoms and community initiatives play a crucial role in realizing community development principles. This article also observes that the Indonesian government has yet paid attention to the complications and issues surrounding their implemented program, and thus failed to understand the needs of the locals based on their cultural contexts. This research is qualitative and involves content analysis from publications namely: academic journals on post-disaster and house reconstruction reports on Indonesia's post-disaster reliefs, as well as online news sources. In structure, the article will first draw up the context behind Indonesia's problematic house reconstruction project in Lombok post-disaster before addressing the topic through comparative analysis on similar case studies. This article then draws up conclusions based on the framework of community development principles, on the reasons behind Indonesia's government's ineffective house reconstruction project. The article also seeks to elaborate possibilities in improving the effectiveness of Indonesia's post-disaster house reconstruction project.

Keywords: Lombok; community development; social capital; human security; local wisdom

Introduction

House reconstruction is integral in the management of the post-disaster condition (Félix et al., 2015). Being homeless is more than just losing a physical place to sleep in, it also means losing spaces for privacy, comfort, and security (Félix et al., 2015). In some cultures, it could also mean losing parts of

what enables one's identity and dignity (Félix et al., 2015). Thus, timely house reconstruction in post-disaster is important to minimize further damage caused to victim's rights. The handling of house reconstruction should be rooted through the perspective of community development, siding with the needs of the local community, through local contexts that

guarantees sustainability. In Indonesia's case, an effective post-development project on house reconstruction has yet been achieved effectively.

For instance, there were reports of excess building post-disaster Aceh back in 2004 (Felayati, 2016). These constructions are made by various multi-stakeholders and went through distinct processes (Felayati, 2016). However, each of them lacks coordination and thus resulted in a wasted and unfocused reconstruction aid (Felayati, 2016). In Yogyakarta after the 2006 earthquake, a similar condition was also observed (Thohir et al., 2009). However, unlike Aceh which received massive international aid, Yogyakarta was left relying on the local community's solidarity and initiatives (Thohir et al., 2009). While the Indonesian government had done its part in promoting development aid in Yogyakarta, aid delivery was considerably slow (Thohir et al., 2009). This goes especially for villages in hard-to-reach mountainous areas (Thohir et al., 2009).

Despite both Aceh and Yogyakarta cases happening more than 10 years ago, it is unfortunate to see that the Indonesian government has yet to improve its ways in conducting post-disaster house reconstruction projects as proven through the case of the Lombok earthquake back in 2018. Victims of the earthquake reportedly complained about the government's performance prominently on house reconstruction, which they described as slow, corrupt, and lacking (ABC, 2018; Ayuwiragil, 2018; CNN, 2018a; Hutapea, 2018b; Paddock & Suhartono, 2018). This article seeks to explore the reasons behind what made Indonesia's government's post-disaster

house reconstruction project ineffective in the case of Lombok's disaster. It will look at the 2006 disaster case in Yogyakarta, comparing the government projects and policies to highlight patterns that might contribute to the failure of the government house reconstruction project in Lombok. The article will also look at reports and academic articles on the topic of post-disaster development and house reconstruction to gain further insights on the discussion surrounding the government's post-disaster projects' effectiveness. This article will put forward the perspective of human security which is aligned with community development principles to analyze the effectiveness of the said projects.

This article believes that it is of urgency that academician starts discussing the matter of post-disaster reconstruction, especially pertaining government's projects in the context of Indonesia due to the severity of the issue, as well as the observed lack of improvement by the government in their conduct of delivering effective house reconstruction projects. It is hoped that through this article, readers could gain further insights on the importance of effective house reconstruction projects in minimizing post-disaster damages, as well as ways to improve multi stakeholders' contribution in alleviating disaster effects.

Human Security and Post-Disaster Development Project

In accordance with United Nations' (UN) General Assembly resolution 66/290, human security is defined as "an approach to assist Member States in identifying and addressing widespread and cross-cutting challenges to the

survival, livelihood, and dignity of their people” (UN, 2012). It places the focus on the people and drives approaches that are “comprehensive, context-specific” orienting on prevention as well as the strengthening of “protection” and “empowerment” of impacted individuals (UN, 2009). The human security approach in its process emphasizes the plights and challenges of the people instead of the state, highlighting the effectiveness of aid from the lens of those who received it (Liotta & Owen, 2006; UN, 2009). This definition of human security approach is aligned with the principles of community development that prioritizes the needs and participation of the impacted people in the context of post-disaster development projects. As an institution that promotes context-specific approaches in delivering various humanitarian aid, the United Nation’s definition of human security provides the necessary foundation to see the appropriate ways that pave effective aid in the eyes of the recipients (UN, 2009). Its approach that sides with the needs of the victims is also integral in assessing the effectiveness of post-disaster development projects, including that of house reconstruction, free from the lens of stakeholders who may perceive effectiveness in terms of their own needs, instead of the victims (Liotta & Owen, 2006; UN, 2009). Accordingly, this article agrees on several positions on the term “security” discussed, that: 1) It is the security of the people of Lombok who are impacted by the earthquake back in September 2018, 2) It is security from Natural Disaster and the possible threat posed by careless/ignorant development projects post-disaster, 3) It is an issue of security by government project, aid, and its complexities.

Social Development: Community Development and Social Capital Theory

In line with the human security perspective, the community development theory provides the appropriate theoretical basis in understanding effective, post-disaster house reconstruction projects that side with the victim’s needs. According to Midgley, community development theory encompasses three main types of community-based intervention as an umbrella term: 1) community building, 2) community action, and 3) community economic development (Midgley, 2014). These factors are all overlapping and play a crucial role in enhancing people’s livelihood (Midgley, 2014). Such enhancement is possible by successfully establishing social networks, community networks, and activities, mainly promoting local people’s interests (Midgley, 2014).

The emphasis on cooperation as a means of survival is also present in community development (Midgley, 2014). This cooperation is “historically voluntary” and is driven by the current cultural norms and expectations for act repetition (Midgley, 2014). This factor is also crucial in mobilizing masses, utilizing the existing established authority, which is vital for community development program implementation (Midgley, 2014). In addition, there is also the critical factor of “trust” in cooperation enactment for the success of public participation (Alexanders, 2003).

Key social development concepts such as “participation, self-help, and self-determination” are inseparable from the theory of social development, which relates closely to the “social capital” concept (Midgley,

2014). These concepts very well bridge the factors involving economic and social interventions in any cases of development projects (Midgley, 2014). The emphasis of people as “investments” in community actions, as well the focus on how the accumulation of community-owned assets, such as schools, roads, clinics, etc., highlights the importance of social capital theory in understanding post-disaster reconstruction projects through the lens of human security (Midgley, 2014). It serves as an emphasis that a community’s strength lies in its social networking capability, shown through how intense and durable such networks are (Midgley, 2014). These social networks are crucial to strengthen community integration and development; such is done through the “fostering of civic engagement” (Midgley, 2014). To promote social capital, a “social investment function” is crucial when one is opting to start any economic projects, including those of post-disaster house reconstruction (Midgley, 2014).

In this article, the community development principles play an important role in picturing the effectiveness of Indonesia’s post-disaster house reconstruction projects. According to Bhattacharyya, there are three overlapping principles of community development: 1) self-help, 2) felt needs, and 3) participation (Bhattacharyya, 2004). In this case, self-help focuses on building and utilizing agency and mobilizing people’s assets (cultural and material) to become less dependent (Bhattacharyya, 2004). “Felt needs” focus on the idea that development projects should prioritize people’s needs and seek to solve them from the people’s perspective (Bhattacharyya,

2004). “Participation” refers to the involvement of the people in the creation of “collective meanings” (Bhattacharyya, 2004).

In accordance, this article seeks to see whether the post-disaster house reconstruction projects implemented in Indonesia, particularly by the Indonesian government have fulfilled these three principles of community development which adhere to the previously explained human security and social development concepts. This article will assess whether the analyzed programs have encouraged the aid recipients to be independent and less reliant on external aid, fulfilling the “self-help” principle. This article will also assess whether these projects have paid attention to the victim’s needs, adhering to the “felt-needs” principle. In addition, this article will also look at whether the projects have effectively involved the locals and victims in terms of “participation” as part of the community development principle in realizing their post-disaster house reconstruction project.

Methodology

This article uses a qualitative method approach and explanative research in analyzing the effectiveness of post-disaster house reconstruction projects in Lombok. The data this article looked at are papers, journals, reports, news, books, and other publications from multiple local and foreign sources that focus on the topic of post-disaster community development especially in Indonesia’s Lombok cases. This article will conduct a comprehensive content analysis on these sources through the perspective of human security and community development principles to clarify the article’s hypothesis and conclusion.

Firstly, in terms of local and foreign news articles available online, this article research involves the keying in of these following keywords: Lombok, disaster, foreign aid, earthquake, as well as “*gempa bumi, bencana, bantuan luar negeri*.” These keywords are keyed simultaneously and then by pairs, depending on the data’s availability. The sources referred to are prominent and certified online sources in Indonesia (national scale), Lombok (local scale), and international scale. These scales are essential to gain a comprehensive media view of the issue and avoid one-sided analysis.

Secondly, on academic publications, this research chooses those that highlight the history of post-disaster relief in Indonesia, such as reports made by Wali Saeful Thohir, Wardah Hafidz, and Gabriela Sauter (2009) on Yogyakarta’s community development projects post-disaster (Thohir et al., 2009). This article also looks at works written by Midgley to conceptualize social and community development more academically (Midgley, 2014). In addition, work published by Daniel Félix, Daniel Monteiro, Jorge M. Branco, Roberto Bologna, and Artur Feio (2015) also plays an integral part in describing and explaining the necessity of effective house reconstruction project post-disaster, which is relevant to the case of Lombok (Félix et al., 2015).

Lastly, due to the unfortunate lack of academic articles on the topic of

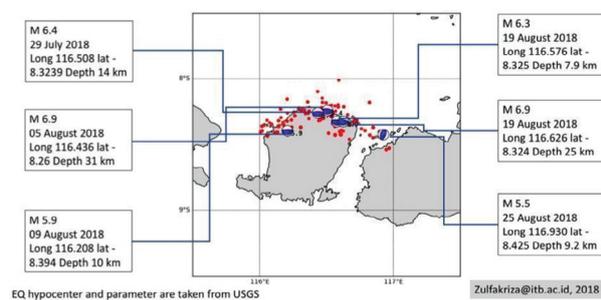
Lombok disaster and its post-disaster house reconstruction project, this article will rely heavily on the government, NGO’s, and local communities’ reports on post-disaster community development projects in Lombok to picture post-disaster relieve efforts effectiveness. However, the analysis done on these reports will be accompanied by knowledge gained through other articles explaining similar cases of disaster in Indonesia as well as post-disaster house reconstruction experiences to liven up the article’s argument.

Background on Lombok Post-Disaster

It is important to understand first-hand that the uniqueness of the 2018 Lombok earthquake lies not only in its magnitude but its frequency. The Lombok disaster back in 2018 involves consecutive earthquakes that are notably powerful in magnitude, which was more than 5.5 magnitude of power on the Richter scale (BBC, 2018; Zulfakriza, 2018). According to various media, the central point that marks the beginning of the consecutive disasters was the 6.4 magnitude earthquake that struck Lombok back on 29 July 2018 (Wallansha, 2018). Based on the data by “Badan Nasional Penanggulangan Bencana” (BNPB)³ or the Indonesian National Board for Disaster Management, the overall damage that resulted from the 2018 Lombok earthquake amounted to 71,962 damaged houses, 671 damaged

3 **Badan Nasional Penanggulangan Bencana (BNPB) or the Indonesian National Board for Disaster Management**, functions primarily in the field of Indonesia’s disaster management which includes prevention, rehabilitation, and reconstruction in accordance with the Indonesian law. They are in charge of delivering information related to disaster relief to the public as well as creating monthly reports to the government. They are also responsible for the management of national and international aid, as well as government funds received for disaster management. The matters of formulating policies related to disaster relief and management are also included as part of their role (BNPB, 2017).

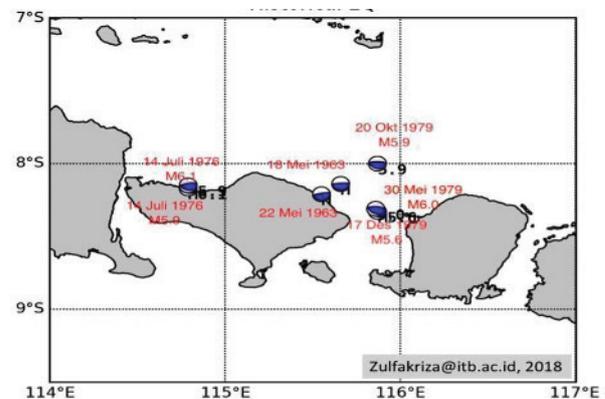
educational facilities, 52 damaged health facilities, and 128 damaged religious facilities (Zulfakriza, 2018). Also, there were reportedly 460 deaths, 7733 injured people, according to the BNPB data (2018). Around 417,529 people were evacuated (BNPB, 2018). In total, the loss was estimated to be around trillions of rupiahs (BNPB, 2018). This estimation has yet to include the potential loss from the tourism sector's damages in the area (BNPB, 2018).



Picture 1.1. The picture shows the distribution of the 2018 earthquake in Lombok. The black and blue circle indicates the upward cesarean focus. The red circle shows the earthquakes' distribution between 29 July to 10 September 2018 (Zulfakriza, 2018).

In work titled "Earthquake, Gravity and The Origin of the Bali Basin: An Example of a Nascent Continental Fold-and-Thrust Belt," written by McCaffrey and Nabelek which was published in the *Journal of Geophysical Research* in 1987, it is described that there were at least seven big earthquakes which struck Bali and Lombok between 1963 to 1979 (Zulfakriza, 2018). These earthquakes occurred on the following dates: one on 18 May 1963, one on 22 May 1963, two on 14 July 1976, one on 30 May 1979, one on 20 October 1979, and one on 17 December 1979 (See Picture 2.2). Even so, it is essential to take note that the

positioning for the 2018 Lombok earthquake was quite different from the ones in 1963, 1976, and 1979 (Zulfakriza, 2018). However, taking all this information into account, there might be a chance that a similarly patterned earthquake occurs in the area in the future (Zulfakriza, 2018). This shows how the experience of a powerful consecutive earthquake is not new and unique for Lombok, which highlights further the urgency for comprehensive and effective post-disaster management coming from all stakeholders. It is of high importance for these actors to learn from past experiences and improve as to deliver more effective responses in the future when faced with another disaster. As such, it is concerning that despite years of disaster experience, Indonesia's government has yet improved significantly in its disaster responses, especially pertaining to prevention and post-disaster building reconstruction.



Picture 2.2. The distribution of earthquakes in 1963, 1976, and 1979 happened in Bali and Lombok (Zulfakriza, 2018)

Concerning evacuation processes, The Indonesian Coordinating Minister of Politics, Legal and Security Affairs, was instructed to manage disaster responses by the President of Indonesia in post-disaster Lombok (Cabinet

Secretariat of the Republic of Indonesia, 2018). Instructions were also given for several big public institutions and the police, and Indonesia's Ministry of Social Affairs (Cabinet Secretariat of the Republic of Indonesia, 2018). The president has also ordered the Governor of West Nusa Tenggara of that time, Muhammad Zainul Majdi, to oversee post-disaster Lombok (Cabinet Secretariat of the Republic of Indonesia, 2018). The governor has also visited several areas where survivors were located and encouraged people to donate blood (PosKupang, 2018).

In addition, the BNPB has worked together with TNI, Indonesia's national police, and the "Badan Nasional Pencarian dan Pertolongan" (Basarnas) or the "National Search and Rescue Agency"⁴ to handle evacuation processes in post-disaster Lombok (Kuwado, 2018). They have also worked together with several Indonesian ministries and non-governmental organizations (NGOs) to aid, assist, and rescuing those affected by the disaster (Kuwado, 2018). The TNI, in this case, has sent planes to Lombok carrying various aid such as medicine, tents, and food (Kuwado, 2018). In the Gili islands, the Indonesian government had successfully evacuated 4636 people by 7 August 2018 to Bangsal, Lembar, and Bena ports (Fardiansyah, 2018). Even so, evacuation efforts were difficult considering blackouts, severe lack of equipment, and communication means (Agung, 2018; Paramaestri, 2018). Such difficulty is also reflected through tourist complaints, highlighting the lack of coordination

between authorities in the process and that not enough information was given to the tourists due to the language barrier (Paddock & Suhartono, 2018). There were also reports of authorities extorting money from tourists for rescue boats (Embury-Dennis, 2018). This was confirmed by the BNPB, stating that there were indeed some parties that demand money from tourists for evacuation "service," some even demanded Rp 2 million (Embury-Dennis, 2018).

Despite all of these efforts done by the government, effectiveness has yet been achieved successfully. To summarize, may it be from the stages of communication, evacuation as well as aid management, there is still room to improve, especially in terms of effective coordination and information relays (Embury-Dennis, 2018; Paddock & Suhartono, 2018). Complaints by victims, including foreign nationals, are reflective of these concerns (Embury-Dennis, 2018; Paddock & Suhartono, 2018). Such a problem could also be seen from the house reconstruction projects implemented in Lombok post-disaster. In general, these projects are hoped to be done readily, quickly, and efficiently as to minimize further damages as an effect of the disaster. However, like other aid projects described previously, the post-disaster house reconstruction project is also littered with problems. The complications surrounding the post-disaster house reconstruction project will be elaborated more thoroughly in the next section.

Indonesia's Post-Disaster House Reconstruction Project

4 **Badan Nasional Pencarian dan Pertolongan (Basarnas) or the National Search and Rescue Agency** is an organization that functions to assist the president in conducting governance in the field of search and rescue (Basarnas, 2019).

Lombok Post-Disaster House Reconstruction Project

One of the most prominent projects done by the Indonesian government in any post-disaster condition was on house reconstruction. Back in August 2018, Jusuf Kalla, who was then Indonesia's vice president, made a statement on the start of house reconstruction program post-Lombok disaster (Kominfo, 2018). The program mainly involves the assistance of the government in the processes and financing of house reconstruction (Kominfo, 2018). In this case, the funds which were allocated for the purchase of building materials, as well as the rebuilding itself, were administered by the "Pekerjaan Umum dan Perumahan Rakyat" (PUPR) or the Ministry of Public Works and Public Housing⁵ (Kominfo, 2018). The financing amounts to Rp 50 million for a heavily damaged house, Rp 25 million for a moderately damaged house, and Rp 10 million for a slightly damaged house (Kominfo, 2018).

This program's primary purpose was to build houses resistant to earthquakes with at least nine magnitudes on a Richter scale (Kominfo, 2018). The period of rebuilding was aimed to be a month for one house, and 6 months for all damaged houses (Kominfo, 2018). To achieve this, under the statement made by the minister of PUPR, locals were trained to assist in the building of their own earthquake-resistant houses. This training took 1 to 2 days, and involve the participation of scholars from various high education institutions, and the "Tentara Nasional Indonesia" (TNI) or the Indonesian National Armed Forces (Kominfo, 2018). To ensure effective reconstruction

results, simultaneously, the PUPR has also tried to fix the surrounding infrastructures such as local markets and schools (Kominfo, 2018).

The name of the earthquake-resistant house introduced by the government was "Rumah Instan Sederhana Sehat" (Risha) or in English- instant, simple and healthy housing (HUMASPMK, 2018). The project first begins in Praya, Central of Lombok, however, according to official reports, the conduct of the project was far from satisfactory (HUMASPMK, 2018). Firstly, while the locals were given the freedom to choose their house building model, their freedom to build was limited due to the lack of building panels available (HUMASPMK, 2018). In this case, the government has encouraged local organizations and bodies to assist in the said panel production (HUMASPMK, 2018). Secondly, other than this, the government was said to have been incapable to coordinate effective management for the reconstruction project post-disaster as highlighted by the refuge coordinator in Pemenang district, North Lombok (Sucahyo, 2018). This is shown through how a large number of victims waited long for their turn to receive house reconstruction aid, which was contrary to the government's claim of swift assistance (Sucahyo, 2018). The community effort encouraged and boasted by the government was also said to have been

limited to the cleaning of post-disaster debris (Sucahyo, 2018). To make it even worse, this cleaning of debris was further limited due to the lack of tools and manpower (Sucahyo, 2018). Also, despite this apparent issue, there were reports of volunteers leaving Lombok

early contributing further to the need for the manpower (Sucahyo, 2018).

In addition, there were also complaints about the late distribution of “Dana Siap Pakai” or the “Readily Used Funds,” which was believed to be the result of political complications (CNN, 2019). One of the villagers who complained was the head villager of Jeringo Village in West Lombok (CNN, 2019). In this village, 93% of 2734 people have suffered the “severe” level of earthquake impact (CNN, 2019). He stated amidst the severity of his village condition that the government should stop the politicization of disaster and do more effort into realizing their promise in the case of “Dana Siap Pakai” as soon as possible (CNN, 2019).

Reflection on Yogyakarta’s Experience in Post-Disaster House Reconstruction Project

Unfortunately, problems surrounding the management of the post-disaster house reconstruction project were not new for Indonesia. Previously in the case of the Yogyakarta earthquake back in 2006, as stated through a report published on Uplink Yogyakarta, there were several problems identified from the government’s approach in rebuilding and reconstructing houses post-disaster (Thohir et al., 2009).

Firstly, there was an issue with the “phased payment” of reconstruction funding. In this case, villagers are divided into groups, and each group will receive payment in “phases,” this means that some groups will receive the funding earlier or later than the others (Thohir et al., 2009). This is problematic as it could potentially cause distrust and tension among groups of villagers (Thohir et al., 2009). It

is unfortunate that despite this concern, in Lombok, a similar practice was also observed (Hutapea, 2018a; Sucahyo, 2018). Thus, when fund allocation was conducted and it was proved to have not been enough to be distributed timely, it was deemed as unfair to the groups who received the funding later than the rest (Aji, 2018; CNN, 2018b)

Secondly, the government categorization on the severity level of house destruction was vague and subjective (Thohir et al., 2009). In Yogyakarta post-disaster, the government has categorized 3 different levels of house destruction severity, in which different levels will receive different amounts of funding for reconstruction. These are Rp 15 million for obliterated houses, Rp 4 million for moderately destroyed houses and, Rp 1 million for slightly destroyed houses (Thohir et al., 2009). In Yogyakarta’s case, many houses were nearly completely destroyed, however, there is no clear indicator on which houses will fall into certain categories (Thohir et al., 2009). The people who are assigned to determine the categorization—police, teachers, and government officials, are not very much qualified to measure so (Thohir et al., 2009). This lack of clarity in categorization creates tension between families who received different amounts of funding from each other (Thohir et al., 2009). As mentioned before, in Lombok, house reconstruction funding was also categorized into three severity levels, which retain vagueness and contribute further to the victim’s concern over the reliability of the government’s house reconstruction funding management (Kominfo, 2018).

Thirdly, another issue related to grouping could be seen through the forming

of community groups urged by the government (Thohir et al., 2009). These groups consist of 10-15 heads of families and are deemed necessary to ease the house reconstruction project processes and funding management (Thohir et al., 2009). However, in its realization, it was considered problematic due to the corruption involved. In Yogyakarta's case, these problems include 1) the paying of government officials, usually the head of RT, through the funding that was supposedly only allocated for the victims (Thohir et al., 2009). This paying of officials is done by the victims themselves who felt the need to express their thank you (Thohir et al., 2009). 2) the incapability of some victim groups in providing the government with reports required to receive their reconstruction funding (Thohir et al., 2009). There are communities that are less educated than others in terms of writing official reports. Some may also need to pay more to hire report writing assistance. In addition, these reports need consultants' signatures to be approved, thus there are cases in which the victim groups felt the need to bribe consultants to guarantee their reports acceptance (Thohir et al., 2009). 3) the lack of supervision from the government in the management of funding distribution (Thohir et al., 2009). This lack of supervision gives chances for dishonest group leaders to ask for more funding which they could use for personal needs (Thohir et al., 2009). In Lombok, a similar grouping was also observed. The government, in an effort to push local participation, has urged 10-20 families each to form a group (Sucahyo, 2018). They feel that this will contribute to the success of the funding management (Sucahyo,

2018). However, like Yogyakarta's case, in its conduct, such groupings are problematic, and these are acknowledged by the officials themselves, including Puan Maharani and Indonesia's President Joko Widodo, who was then concerned about the victim's accountability on the received funding (Riana, 2018; Sucahyo, 2018).

Local Custom and Wisdom: Roles in Post-Disaster House Reconstruction

In the Lombok disaster, most deaths were caused by falling debris of concrete houses (Siringoringo, 2018c). Thus, the building of alternative, more sustainable houses that follow Lombok's "ring of fire" natural contour has become the center of local attention (Siringoringo, 2018c). This includes as well local's realization of their ancestor's wisdom on the building of traditional structures in their area (Siringoringo, 2018c). For instance, the local people of Todo, after the Lombok disaster have realized and observed that most "Rumah Panggung" or traditional stage houses were able to withstand the earthquakes. Even though their ancestors did not mention anything about the "ring of fire," these structures have left a powerful message on house safety in the area (Siringoringo, 2018c). This understanding then inspires the locals, especially those traumatized by concrete houses (Siringoringo, 2018c). Concrete house construction is rigid thus is mostly prone to cracks during the earthquake (Siringoringo, 2018c). On the other hand, stage houses or wooden houses were more flexible. This is so as the connection between each wood will follow the wave of shocks

(Siringoringo, 2018c). Other than that, the roofs of stage houses are also lighter, making stage houses more resistant to collapsing (Siringoringo, 2018c).

Other comments made concerning the NTB earthquake and its local wisdom were stated by the local figure “Penghulu Adat Sembalun Abdurrahman Sembahulun,” he explained that the earthquake damaged could be related to the locals declining closeness with their surrounding nature (Siringoringo, 2018b). Another widely mentioned local myth was about the “Lindur’s Lake Myth” on a massive earthquake in Gumi Sasak, which serves as a warning from ancestors in Lombok on natural disasters in the area, and local customs that should be followed for survival (Fauzan & Aziz, 2020). However, as years passed, new generations seem to show diminishing respect for these locally rooted warnings. One way to see this is through how the building of houses in NTB has already begun to violate the local “adat istiadat” or rules of values and customs (Siringoringo, 2018c). One example of traditional housing that followed NTB’s “adat istiadat” is Berugak (Siringoringo, 2018a). In a way, the berugak is similar to a “pendopo,” a large roofed platform construction usually built by the Javanese in front of their main houses (Siringoringo, 2018a). Berugak could accommodate up to 12 people or two households and is made of four (saka empat) or six wooden pillars (saka enem) (Siringoringo, 2018a). Usually, local Bayan people would build berugak next to their main house (Siringoringo, 2018a). Berugak were generally built in front of a house, facing south. It has many functions, other than for the seating area, and it could be used to place the dead bodies of Bayan people

or to receive guests (Siringoringo, 2018a). Berugak, according to the Bayan people, has been considered a temporary refuge place when earthquakes happen due to its safe construction (Siringoringo, 2018a). Usually, if a local owns a berugak, they will come back to the place after a few days stay in a refugee camp (Siringoringo, 2018a). What is concerning is that if the berugak was constructed near modern houses, it is prone to be crushed when earthquakes happen (Siringoringo, 2018a). Due to this fear, the locals have decided that evacuating to refugee tents was the best option (Siringoringo, 2018a). Even so, in the first place, if the modern houses were built lower than the berugak then it would be safer for the people to stay in the berugak (Siringoringo, 2018a).

Other examples of local buildings that withstood Lombok’s earthquake include the Gumantar Village houses which were made from bamboo walls, and floored with soil and tatches (Rakhman, 2018). These houses, as well as the village’s “Masjid Kuno” were able to stand tall among the fallen and destroyed brick concrete houses (Rakhman, 2018). Similarly, in the Village of Beleq, traditional houses were able to stay undamaged despite the powerful earthquakes (Rakhman, 2018). In addition, these houses also possessed berugaks which were built near (Rakhman, 2018). After the disaster, the local elder’s wisdom on “mangku kiyai, amaq lokak” was further paid attention to (Rakhman, 2018). The realization of this wisdom includes “gotong royong” or teamwork in the enactment of rebuilding processes which pays attention to the local customs and materials, such as opting for wood or bamboo instead of bricks or concrete

(Rakhman, 2018). Due to this experience, many locals voiced their preference for traditional house structures and suggested that the government consider them (Rakhman, 2018). The locals also urge the government, especially in the case of measuring the rate of poverty in the area, to address their stereotype on categorizing traditional houses as outdated, unfit, “kumuh” or dirty (Rakhman, 2018).

Community Development Principles: Assessing Lombok Post-Disaster House Reconstruction Project’s Effectiveness

Community Development principles are integral in determining the success of a post-disaster reconstruction project (Bhattacharyya, 2004; Midgley, 2014). The need for a project to be oriented in the needs of the victims aligns with human security fulfillment which emphasizes independence, sustainability, and livelihood (Bhattacharyya, 2004; Liotta & Owen, 2006; Midgley, 2014; UN, 2009, 2012). The Indonesian government has claimed that their post-disaster development projects are oriented through such a perspective (Kumparan, 2018). Their aid management, especially on house reconstruction, has boasted local participation (Kumparan, 2018). However, considering the previous mention of problems surrounding the government’s lack of attention to the context of their aid management how much of this “local participation” could be considered effective?

The first principle of community development is “self-help.” This means that any projects orienting to community development should be able to realize a sustainable environment that enables victims to become independent (Bhattacharyya, 2004; Midgley, 2014). In

Lombok’s case, the government has tried to achieve this by encouraging the victims to manage their group fund allocation, as well as choosing their building materials, on top of discussing the appropriate processes for house reconstruction that adhere to their local context (Hutapea, 2018a; Kominfo, 2018; Kumparan, 2018; Kurnia, 2018). However, as mentioned before, the government’s encouragement on group divisions as well as teamwork was proven to have yet been successful, as seen through; 1) tensions caused by “phase payment,” 2) questionable categorization of house severity level funding, 3) corruption due to lack of accountability and supervision (Hutapea, 2018a; Kominfo, 2018; Riana, 2018; Sucahyo, 2018; Thohir et al., 2009). Thus, in this case, the government project on house reconstruction is ineffective, due to its inability in satisfying the “self-help” principle of community development.

The next principle of community development is “felt-needs,” this means that the project enacted should focus on the needs and perspectives of the victims (Bhattacharyya, 2004; Midgley, 2014). Thus, these projects should be thorough in identifying the victim’s needs and problems. They should also be open to suggestions, including those involving their enacted assistance. Unfortunately, the government projects on house reconstruction post-disaster have yet to satisfy this principle. This is reflected through how they kept repeating the same mistakes despite having experienced similar issues previously (Felayati, 2016; Thohir et al., 2009). For instance, they still opt for similar group division schemes they have initially done with Yogyakarta post-disaster

case to Lombok (Thohir et al., 2009). They have also kept the questionable categorization of house severity levels for the allocation of funding (Kominfo, 2018). The government also did little to supervise the management of funds for the victims, causing further speculation on accountability (Kominfo, 2018; Riana, 2018; Thohir et al., 2009).

The last principle of community development is “participation.” As touched upon previously, the extent of “participation” of the locals in the context of the government post-disaster house reconstruction project in Lombok is still questionable. While the victims were given the freedom and space to decide their building materials as well as management of funding within their team, simply that does not guarantee active participation (Kominfo, 2018; Kumparan, 2018; Sucahyo, 2018). As highlighted through how the government house reconstruction project fails to fulfill the “self-help” principle of community development, due to the resulted tensions, corruptions, and skepticism, it could also be said that “participation” in this context has yet been achieved effectively (CNN, 2019; Embury-Dennis, 2018; Sucahyo, 2018; Thohir et al., 2009). Moreover, there were also accounts on how the lack of material and manpower supposedly provided by the government and associated volunteers caused limitations for the expected participation (Sucahyo, 2018).

Stages of Post Disaster House Reconstruction: Making House Reconstruction Project More Effective

From the previous section, it is understood that the ineffectiveness of the

government project in post-disaster house reconstruction, is rooted in their failure to fulfill the principles of community development. Highlighting the incapability of the project in addressing goals that the government seeks for it to achieve such as self-sustainability, security, and livelihood. Then, why is it that, despite the government’s effort to enable their project in accordance with community development principles, it still amounts to ineffectiveness? Other than failing to learn and improve from previous experiences, such as from the post-disaster project in Yogyakarta back in 2006 This article observed that the government has yet comprehensively implemented the appropriate stages of post-disaster house reconstruction (Thohir et al., 2009).

Quarantelli (1995) categorizes four stages of post-disaster house reconstruction, which include: 1) “emergency shelter” which refers to the immediate place for a stay after disasters, it is usually in the form of community buildings, neighbors, friends or relatives’ houses (Félix et al., 2015). 2) “temporary shelter” which refers to a place for a short few weeks of stay, usually in the form of tents, or other mass shelter facilities (Félix et al., 2015). 3) “temporary housing” which refers to an accommodation that the victims could stay in before resuming their regular daily activities (Félix et al., 2015). They usually reside for 6 months to up to 3 years, and the buildings are usually in the form of rented houses (Félix et al., 2015). 4) “permanent housing” which is a house that is effectively rebuilt for the victims to re-settle (Félix et al., 2015). To encompass all of these terms, Johnson (2002) introduced a universal term called “temporary

accommodation” (Félix et al., 2015). This term refers to all stages one to three in house reconstruction mentioned by Quarantelli, just before the erection of a “permanent housing” (Félix et al., 2015).

In Lombok post-disaster, the government has tried to address all needs to fulfill the four stages categorized previously. However, despite this effort, why is it then the government still fails to deliver an effective house reconstruction process? The government has instructed survivors to settle in an emergency shelter appointed by the government (Kominfo, 2018). The government has also worked together with various stakeholders to deliver supplies for temporary shelters such as tents (Kominfo, 2018; Kumparan, 2018; PUPR, 2018, 2019). To top it off, they have also tried to involve the locals in the reconstruction of permanent housing, by giving them the freedom to select their materials for the rebuilding (Kumparan, 2018). However, to achieve success in house reconstruction post-disaster, in accordance to community development that is sustainable and reliable, simply building construction is not enough. Simply supplying materials and financing is also insufficient. To enhance the rate of success, three other factors are necessary, which are: 1) pre-planning, 2) the utilization of local resources and social capital, and 3) going beyond physical “building” as accommodation (Félix et al., 2015).

As said at the beginning of this article, housing is more than a simple building erected for people to sleep in. Housing is also about security, identity, comfort, and culture. Thus, the process, the environment, all aspects surrounding a person’s basic livelihood,

should also be included to realize effective reconstruction of appropriate housing. In the “pre-planning” step, the government should look further in-depth at not only what seems to be the needs and preferences of the victims (Félix et al., 2015). During the process, the government should also take note of the public’s concerns and suggestions in the aim to solve them. This also includes learning from previous similar experiences to guarantee better effectiveness if another disaster is to happen again.

Next, the utilization of natural resources and social capital is crucial, and the government should do better in identifying and utilizing them (Félix et al., 2015). Such as encouraging the building of traditional based houses, instead of stereotyping said houses to be outdated and poor (Rakhman, 2018). One good example of the use of social capital in temporary reconstruction could be seen through the partnership between the Indonesian and Australian government through the INOVASI (Inovasi Untuk Anak Sekolah Indonesia) program for education facilitation post-disaster Lombok (Harususilo, 2018, 2019). The building used for the education activities includes 14 semi-permanent schools made from bamboo in North Lombok (Harususilo, 2018, 2019). Other than bamboo, the schools utilized other commonly found local resources such as wood and thatches (Harususilo, 2018, 2019). The buildings were carefully built paying attention to fundamental issues related to disaster prevention, safety, and mitigation (Harususilo, 2018, 2019). In addition, INOVASI also actively conducts surveys in the surrounding area to check the

conditions of roads, sanitation, water supply, and accessibility for children (Harususilo, 2018, 2019). Within classrooms, they also ensure that the basic facilities such as lighting and flooring were suitable for children's use (Harususilo, 2019).

Other examples that show efficient use of natural resources to alleviate livelihood during the reconstruction process could be seen in the creation of a community kitchen in Beleq Gumantar Village North Lombok (Sucahyo, 2018). Not only the presence of a community kitchen that could be praised from the self-sustainability of the village. The villagers were also seeming to be not as affected by the damages of Lombok's earthquake due to their initiative of conducting community farming, which is part of their lifelong local economy consisting of coconut sugar and cashew seed farming (Sucahyo, 2018). In addition, they are not affected by the suddenly closing markets post-disaster due to the villagers regularly storing their produce in "sambik" or granary, which was then still filled with rice (Rakhman, 2018). The villagers reportedly always make sure, collectively, that the granary is always filled up during harvest season and sufficient enough to fulfill villagers' needs (Rakhman, 2018). To top it off, the village also owned a garden that is rich with fruit trees which are useful for the production of various meals (Rakhman, 2018).

Conclusion

This article has shown that the reasons for the Indonesian government's failure in achieving an effective house reconstruction project lie in their incapability to uphold

the principles of community development. The project conducted, despite claiming to have considered local needs and mobilize their participation, has yet been able to foster "self-help" within each targeted community. Local participation is limited due to the lack of materials provided. Funding management schemes also draw skepticism and highlight over-reliance on external aid. The needs of victims were also not appropriately addressed as depicted through the repetition of similar policy problems from Yogyakarta's post-disaster reconstruction project back in 2006 To the Lombok's reconstruction project in 2018 (CNN, 2019; Kominfo, 2018; Riana, 2018; Thohir et al., 2009). The government was also unable to facilitate collective participation of the victims that are orienting towards effective use of social capital and local resources. Most effective program initiation was done by non-government actors, or local communities who paid attention more intimately to the local contexts and concerns (Rakhman, 2018; Siringoringo, 2018a, 2018b; Sucahyo, 2018; Thohir et al., 2009).

The minimization of damage was also proven to be more successful in areas upholding local customs and wisdoms (Fauzan & Aziz, 2020; Rakhman, 2018; Siringoringo, 2018b; Sucahyo, 2018). This article proves that local initiatives are crucial in realizing the success of the post-disaster house reconstruction project. Ancestors' wisdom, while holding no scientific claims at their time, has proven to be useful today when western-style modernization seems to have clashed with Lombok's local survival wisdom (Fauzan & Aziz, 2020; Siringoringo, 2018b, 2018c; Sucahyo, 2018). The building

of modern concrete houses, albeit popular, was discouraged by village elders (Fauzan & Aziz, 2020; Siringoringo, 2018a, 2018b, 2018c). While at first glance it may seem to be an advice for the villagers to respect traditions and nature, it has proven to have been useful in withstanding the effects of Lombok's natural disaster (Fauzan & Aziz, 2020; Rakhman, 2018; Suchahyo, 2018). While concrete houses contribute largely to most deaths after the Lombok earthquake, wooden, bamboo houses stood tall among the rubles (Siringoringo, 2018a). "Berugak" and "rumah panggung" have also proven their prowess due to their flexible material construction (Siringoringo, 2018c, 2018a).

In addition, community cohesiveness is also proven to be useful in times of disaster. Victims of the Lombok earthquake are seen to be more unaffected by disaster damages when their sense of community is strong (Rakhman, 2018; Suchahyo, 2018; Thohir et al., 2009). Such may be reflected through the creation of a community kitchen, storage of local produce, as well as utilization of community farming that guarantees sustainable food resources for all villagers (Rakhman, 2018).

To achieve a much more effective house reconstruction project post-disaster, the government should not only focus on the stages of house reconstruction in terms of material aid or assumed needs (Félix et al., 2015). They should also look at previous experiences and issues surrounding their enacted project, learn from these setbacks, and improve future project planning (Felayati, 2016; Thohir et al., 2009). Pre-planning should involve a thorough survey of the surrounding environment, social capital

as well as natural resources (Félix et al., 2015). The government should also pay attention to their reconstruction processes and supervise the use of their aid allocation more closely as to avoid misuse of funds, avoid official corruption, as well as setbacks due to victim's inexperience in legal and official works. This will then be the first step in ensuring a more effective post-disaster house reconstruction project in the future.

References

Books

Midgley, J. (2014). *Social Development: Theory and Practice*. SAGE Publications. <https://doi.org/http://dx.doi.org/10.4135/9781446294987>

Academic Articles

Alexanders, M. (2003). Social Capital and Trust: An Application to Analyzing Networks of Cooperation. *Comparative Government Paper*.

Journal Articles (retrieved online, with DOI)

Bhattacharyya, J. (2004). Theorizing Community Development. *Community Development Society Journal*, 34(2). <https://doi.org/10.1080/15575330409490110>

Journal Articles (retrieved online, without DOI or page numbers)

Fauzan, A., & Aziz, L. A. (2020). Kearifan Lokal Tentang Mitigasi Bencana Di Kabupaten Lombok Utara Dalam Mitos Telaga Lindur. *Jurnal Ilmiah Ilmu*

- Sosial, 6(2), 184–190. <https://ejournal.undiksha.ac.id/index.php/JIIS/article/view/29941>
- Felayati, R. A. (2016). Efektivitas Bantuan Luar Negeri di Aceh selama 2004-2010 setelah Tsunami Samudra Hindia tahun 2004. *Jurnal Hubungan Internasional*, 9(1), 31–48. journal.unair.ac.id
- Félix, D., Monteiro, D., Branco, J. M., Bologna, R., & Artur, F. (2015). The role of temporary accommodation buildings for post-disaster housing reconstruction. *Journal of Housing and the Built Environment*, 30(4), 683–699. <https://www.jstor.org/stable/43907357>
- Liotta, P. H., & Owen, T. (2006). Why Human Security? *The Whitehead Journal of Diplomacy and International Relations*, 7(1). Taylorowen.com
- Thohir, A. ., Hafidz, W., & Sauter, G. (2009). The How, When and Why of Community Organisational Support: Uplink Yogyakarta in Indonesia. *International Institute for Environment and Development*. <http://www.jstor.com/stable/resrep01356>
- Government Publications**
- BNPB. (2017). Tugas dan Fungsi BNPB. [BNPB.Go.Id. https://bnpb.go.id/tugas-dan-fungsi-bnpb](https://bnpb.go.id/tugas-dan-fungsi-bnpb)
- BNPB. (2018). Dampak Gempa Lombok: 460 Orang Meninggal Dunia dan Kerugian Ekonomi 7,45 Trilyun Rupiah. [BNPB.Go.Id. https://bnpb.go.id/berita/dampak-gempa-lombok-460-orang-meninggal-dunia460-dan-kerugian-ekonomi-745-trilyun-rupiah](https://bnpb.go.id/berita/dampak-gempa-lombok-460-orang-meninggal-dunia460-dan-kerugian-ekonomi-745-trilyun-rupiah)
- Cabinet Secretariat of the Republic of Indonesia. (2018). Presidential Instruction on Lombok Post-Quake Reconstruction Issued. [Setkab.Go.Id. https://setkab.go.id/en/presidential-instruction-on-lombok-post-quake-reconstruction-issued/](https://setkab.go.id/en/presidential-instruction-on-lombok-post-quake-reconstruction-issued/)
- HUMASPMK. (2018). Menko PMK Tinjau Workshop Pembuatan Panel Risha. [Kemenkopmk.Go.Id. https://www.kemenkopmk.go.id/artikel/menko-pmk-tinjauworkshop-%0Apembuatan-panel-risha](https://www.kemenkopmk.go.id/artikel/menko-pmk-tinjauworkshop-%0Apembuatan-panel-risha)
- Kominfo. (2018). Pemerintah Mulai Rehabilitasi Rumah Rusak Akibat Gempa Lombok. [Kominfo.Go.Id. https://www.kominfo.go.id/content/detail/14012/pemerintahmulai-%0Arehabilitasi-rumah-rusak-akibat-gempa-lombok/0/berita](https://www.kominfo.go.id/content/detail/14012/pemerintahmulai-%0Arehabilitasi-rumah-rusak-akibat-gempa-lombok/0/berita)
- PUPR. (2018). Penyaluran Bantuan Rumah Risha Disalurkan Lewat Pokmas Untuk Jamin Akuntabilitas. [Pu.Go.Id. https://www.pu.go.id/berita/view/16279/penyaluran-bantuan-rumah-risha-disalurkanlewat-%0Apokmas-untuk-jamin-akuntabilitas](https://www.pu.go.id/berita/view/16279/penyaluran-bantuan-rumah-risha-disalurkanlewat-%0Apokmas-untuk-jamin-akuntabilitas)
- PUPR. (2019). Rehabilitasi dan Rekonstruksi NTB Terus Dilanjutkan, Kementerian PUPR Perbaiki 492 Sarana Prasarana Umum. [Pu.Go.Id. https://pu.go.id/berita/view/16800/rehabilitasi-dan-rekonstruksi-ntb-terus-dilanjutkankementerianian-%0Apupr-perbaiki-492-sarana-prasarana-umum](https://pu.go.id/berita/view/16800/rehabilitasi-dan-rekonstruksi-ntb-terus-dilanjutkankementerianian-%0Apupr-perbaiki-492-sarana-prasarana-umum)
- Wallansha, R. (2018). Ulasan Guncangan Tanah Akibat Gempa Lombok Timur 29 Juli 2018. [BMKG.Go.Id. https://www.bmkg.go.id/berita/?p=u-](https://www.bmkg.go.id/berita/?p=u-)

lasan-guncang-tanah-%0Aakibat-gempa-lombok-timur-29-juli-2018&lang=ID&tag=gempabumi

Electronic Sources

- ABC. (2018). Desakan Status Bencana Nasional untuk Gempa Lombok. Tempo. Co. <https://www.tempo.co/abc/2368/desakan-status-bencana-nasional-untuk-gempa-lombok>
- Agung, B. (2018). Gili Trawangan Menjelma “Pulau Mati” Usai Dilanda Gempa. CNN Indonesia. <https://www.cnnindonesia.com/nasional/20180808175235-20-320622/gili-trawangan-menjelma-pulau-mati-usai-dilanda-gempa>
- Aji, M. R. (2018). Tiga Kendala Ini Hambat Distribusi Bantuan Pengungsi Gempa Lombok. Tempo.Co. <https://nasional.tempo.co/read/1119632/tiga-kendala-ini-hambat-distribusi-bantuan-pengungsi-gempa-lombok/full&view=ok>
- Ayuwiragil, K. (2018). Minta Tak Dipolitisasi, BNPB Jelaskan Dampak Bencana Nasional. CNN Indonesia. <https://www.cnnindonesia.com/nasional/20180821181822-20-324013/minta-tak-dipolitisasi-bnpb-jelaskan-dampak-bencana-nasional>
- BBC. (2018). Sejak hari Minggu Lombok diterjang puluhan gempa bumi. BBC. <https://www.bbc.com/indonesia/indonesia-45237703>
- CNN. (2018a). JK Kritik Manajemen Krisis Pemda Tangani Gempa Palu. CNN Indonesia. <https://www.cnnindonesia.com/nasional/20181008142133-20-336612/jk-kritik-manajemen-krisis-pemda-tangani-gempa-palu>
- CNN. (2018b). Warga Korban Gempa Lombok Keluhkan Bantuan Mandek. CNN. <https://www.cnnindonesia.com/nasional/20181118090339-20-347446/warga-korban-gempa-lombok-keluhkan-bantuan-mandek>
- CNN. (2019). Korban Gempa Lombok Tagih Janji Bantuan Jokowi. CNN Indonesia. <https://www.cnnindonesia.com/nasional/20190112043537-20-360322/korban-gempa-lombok-tagih-janji-bantuan-jokowi>
- Embury-Dennis, T. (2018). Lombok earthquake: Tourists “forced to pay to board rescue ships.” Independent.Co.Uk. <https://www.independent.co.uk/news/world/asia/lombok-earthquake-latest-indonesia-tremor-quake-dead-victims-tourists-a8480356.html>
- Fardiansyah, A. (2018). Tim SAR Gabungan Berhasil Evakuasi 4.636 Wisatawan Lokal dan Asing di NTB. OkeZone. <https://news.okezone.com/read/2018/08/07/340/1933076/tim-sar-gabungan-berhasil-evakuasi-4-636-wisatawan-lokal-dan-asing-di-ntb>
- Harususilo, Y. E. (2018). Lombok Bangkit, Kemendikbud Canangkan “Gerakan Kembali Ke Sekolah.” Kompas. <https://edukasi.kompas.com/read/2018/09/11/13242431/lombok-bangkitkemendikbud-%0Acanangkan-gerakan-kembali-ke-sekolah?page=all>
- Harususilo, Y. E. (2019). Kisah “Sekolah Bambu” dan Titik Bangkit Pendidikan di

- Lombok. Kompas. <https://edukasi.kompas.com/read/2019/01/25/07300031/kisah-sekolah-bambu-dan-titik-bangkit-pendidikan-di-lombok?page=all>
- Hutapea, E. (2018a). Rekompak, Cara Pemerintah Bangun Rumah Terdampak Gempa Lombok. Kompas. <https://properti.kompas.com/read/2018/08/22/173000921/rekompak-cara-pemerintah-bangun-%0Arumah-terdampak-gempa-lombok?page=all>.
- Hutapea, E. (2018b). Selain Rumah, Fasilitas Publik di Lombok Juga Direhabilitasi. Kompas. <https://properti.kompas.com/read/2018/10/21/140000721/selain-rumah-fasilitaspublik-%0Adi-lombok-juga-direhabilitasi?page=all>
- Kumpanan. (2018). PUPR Konsisten Sosialisasikan Bangunan Risha ke Korban Gempa Lombok. Kumpanan. <https://kumpanan.com/kumpananbisnis/pupr-konsisten-sosialisasikan-bangunan-risha-ke-korban-gempa-lombok-1536229818455611512>
- Kurnia, T. (2018). UMKM Lokal Ikut Rekonstruksi Rumah Korban Gempa Lombok. Liputan6. <https://www.liputan6.com/bisnis/read/3672661/umkm-lokalikut-%0Arekonstruksi-rumah-korban-gempa-lombok>
- Kuwado, F. J. (2018). TNI Kirim 3 Hercules untuk Angkut Relawan dan Logistik ke Lombok. Kompas. <https://nasional.kompas.com/read/2018/08/08/08183631/tni-kirim-3-hercules-untuk-angkut-%0Arelawan-dan-logistik-ke-lombok>
- Paddock, R. C., & Suhartono, M. (2018). Indonesian Islands Were Shaken in Quake. Tourists' Confidence Was, Too. New York Times. <https://www.nytimes.com/2018/08/10/world/asia/indonesia-lombok-earthquaketourism.%0Ahtml>
- Paramaestri, C. (2018). Pasca Gempa Lombok, PLN Berupaya Hidupkan Listrik di 3 Gili. Tempo.Co. <https://bisnis.tempo.co/read/1115186/pasca-gempa-lombokpln-%0Aberupaya-hidupkan-listrik-di-3-gili>
- PosKupang. (2018). Gempa Lombok, Gubernur NTB Tuan Guru Bajang Minta Bantuan Donor Darah. Tribun News. <https://kupang.tribunnews.com/2018/08/08/gempa-lombok-gubernur-ntb-tuan-gurubajang-%0Aminta-bantuan-donor-darah>
- Rakhman, F. (2018). Warisan Leluhur Selamatkan Warga Adat di Lombok Ini dari Gempa. Mongabay. <https://www.mongabay.co.id/2018/08/13/warisan-leluhur-selamatkan-warga-adat-di-lombok-ini-dari-gempa/#:~:text=Warisan Leluhur Selamatkan Warga Adat di Lombok Ini dari Gempa,-oleh Fathul Rakhman&text=Gempa kekuatan 7 SR meluluhlantakkan,dan 570 orang luka ringan.&text=Memasuki gerbang Desa Gumantar%2C Kecamatan,hanya tampak puing-puing reruntuhan.>
- Riana, F. (2018). Jokowi Minta Korban Gempa Lombok Pakai Bantuan untuk Bangun Rumah. Tempo.Co. <https://nasional.tempo.co/read/1137858/jokowi-minta-korban-gempa-lombok-pakai-bantuan-untuk-bangun-rumah>

- Siringoringo, J. (2018a). Masyarakat Adat Bayan Kembali ke Berugak. Aman.or.Id. <http://www.aman.or.id/2018/08/masyarakat-adat-bayan-kembali-ke-be-rugak/>
- Siringoringo, J. (2018b). Pecinta Alam Indonesia: Belajar Kembali ke Kearifan Lokal. Aman.or.Id. <http://www.aman.or.id/2018/08/pecinta-alam-indonesia-belajar-%0Akembali-ke-kearifan-lokal/>
- Siringoringo, J. (2018c). Rumah Tahan Gempa. Aman.or.Id. <http://www.aman.or.id/2018/08/rumah-tahan-gempa/>
- Sucahyo, N. (2018). Manfaatkan Potensi Lokal, Lombok Berupaya Bangkit. VOA Indonesia. <https://www.voaindonesia.com/a/manfaatkan-potensi-lokal-lombokberupaya-%0Abangkit/4673030.html>
- UN. (2009). Human Security in Theory and Practice: Application of the Human Security Concept and the United Nations Trust Fund for Human Security. UNDP. www.tr.undp.org
- UN. (2012). United Nations Resolution 66/290. In United Nations (Issue October). <https://www.un.org/humansecurity/what-is-human-security/>
- Zulfakriza, Z. (2018). Melihat Kembali Gempa Lombok 2018 dan Sejarah Kegempaan-nya. Kompas. <https://regional.kompas.com/read/2018/09/23/11321551/melihat-kembali-gempalombok-%0A2018-dan-sejarah-kegempaan-nya?page=all>