

# Rethinking Disaster Theology

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**Submission date:** 05-Dec-2021 10:41PM (UTC+0700)

**Submission ID:** 1721017012

**File name:** Artikel\_di\_Jurnal\_Open\_Theology\_1.pdf (436.71K)

**Word count:** 7908

**Character count:** 45525

## Issues and Approaches in Contemporary Theological Thinking about Evil

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# Rethinking Disaster Theology: Combining Protestant Theology with Local Knowledge and Modern Science in Disaster Response

<https://doi.org/10.1515/opth-2020-0136>

received June 25, 2020; accepted September 23, 2020

**Abstract:** The interpretation of disaster through a religious lens has produced diverse theological perspectives regarding disaster. This article seeks to analyze the theology of disaster from a Protestant perspective, which may be combined with local knowledge and modern science to create disaster response strategies. This study is based on field studies and related literature analysis with qualitative method using an ethno science approach to see disaster phenomena in the context of Indonesian society, using primary data and secondary data. This study finds out that within Christian theology and among its followers disasters can be seen as the means through which God glorifies His creation while punishing those who have sinned and abandoned His teachings. It concludes, first, that God – the Creator – shows His love and mercy even through disaster. In the Protestant perspective, God seeks to honor His creation by mercifully creating balance. Second, disaster, as part of a natural cycle, should also be understood through local knowledge and modern science; as such, a holistic approach is necessary to understand and respond to disaster.

**Keywords:** disaster theology, grace, mercy, balance, holistic

## 1 Introduction

God's mercy is often ignored in religious interpretations of disaster. Natural and social disasters, as well as viruses and other pandemics, have contributed significantly to scientific and religious discourses even as they have created suffering. Such events always draw diverse interpretations. Such incidents are constructed diversely in society, through what Abdullah identified as a complex and multidimensional discursive process. Three approaches are particularly common in disaster studies: (1) the technocratic approach, which sidelines humanity, (2) the behavioristic approach, which emphasizes responses to disaster, and (3) the politico-economic approach, which emphasizes the structural processes that underpin disaster.<sup>1</sup> Disaster (natural, social, viral, etc.) is a complex and multidimensional phenomenon, one that requires a comprehensive and holistic approach.

<sup>1</sup> Abdullah, *Konstruksi dan Reproduksi Sosial atas Bencana Alam*, 19.

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Many studies of modern science (both natural and social) at the macro level have been conducted.<sup>2</sup> Few, however, have examined disaster from a theological and local knowledge perspective, and as such these have not been incorporated into public policy – even though religious knowledge and local knowledge guide the behaviors of rural and urban populations. In Indonesia, local knowledge is closely linked with customary practices and ancestral teachings. For example, the indigenous peoples of Nusa Tenggara still practice their traditional religion (*Merapu*);<sup>3</sup> residents of villages around Mount Merapi, Central Java, practice their ancestral teachings;<sup>4</sup> and the indigenous peoples of Ambon, Maluku, retain their cultural identity even though they formally identify themselves as Christian or Muslim.<sup>5</sup> This article seeks to explain how disaster is perceived in Christian theology, as well as how such theology can be combined with local knowledge and modern science.

In Indonesia, local knowledge regarding disaster has yet to receive significant public attention, let alone contribute to disaster mitigation efforts, even though all communities have their own indigenous knowledge. Religious views, which this study identifies as disaster theology, tend to frame disasters within the context of human sin and God's wrath. The authors thus deem it necessary to re-examine disaster theology critically, using a holistic approach.

This article seeks to: (1) analyze how Protestantism frames disaster, (2) develop an approach to disaster theology that employs a Protestant perspective within the context of local knowledge. Through this article, the authors seek to critique theological perspectives that tend to blame disasters on human sins and identify them as part of God's wrath. Such a perspective, however, cannot be applied to all disasters. This article begins with two assumptions: *first*, disasters are not merely manifestations of God's wrath, responses to human sins,<sup>6</sup> but also evidence of humans' transience and God's grace. *Second*, the combination of local knowledge, modern science, and religious theology can be used for disaster management. Disasters, as part of a natural cycle, have received diverse responses from local communities – all of which have their own bodies of knowledge. According to Indiyanto, local knowledge is a necessary component of disaster mitigation and risk management. It is a mistake to frame local knowledge as opposed to modern science, as local wisdom has its own specific capacity for influencing communities' everyday lives.<sup>7</sup> It is necessary to integrate local knowledge, including local cognitive instruments and practices, with modern science to mitigate disaster.<sup>8</sup>

This research is qualitative research using fieldwork and literature analysis. Therefore, this study uses primary and secondary data simultaneously. The field study was conducted in Galala village, Ambon city, Maluku province, Indonesia for one month. In order to collect the field data collection, the author

<sup>2</sup> Studies that have focused on structural disaster mitigation have included: Coppola, *Introduction to International Disaster Management*; Giri and Vats, "Natural Disasters in India: A Comparative Study of Print Media's Approach of Top Four English Dailies' Coverage of Uttarakhand Floods;" Berke et al., "Planning for Resiliency: Evaluation of State Hazard Mitigation Plans under the Disaster Mitigation Act;" Ford, "The Caribbean Disaster Mitigation Project;" and Buckle, "Disaster: Mandated Definition, Local Knowledge and Complexity;" Kestenbaum et al., "Examination of Spiritual Needs in Hurricane Sandy Disaster Recovery Through Clinical Pastoral Education Verbatims;" Paton and Johnston, "Disasters and Communities: Vulnerability, Resilience, and Preparedness;" Perry and Quarantelli, *What Is a Disaster? New Answers to Old Questions*, Schlehe (2010), Mallick and Vogt, "Social Supremacy and its Role in Local Level Disaster Mitigation Planning in Bangladesh." Studies that have used a Christian theological perspective include those by O'Mathúna, "Christian Theology and Disasters: Where is God in All This?;" Chester, "Theology and Disaster Studies: The Need for Dialogue;" and Chester et al., "The Importance of Religion in Shaping Volcanic Risk Perceptions in Italy, with Special Reference to Vesuvius and Etna."

<sup>3</sup> Immanuel, "Merapu Dalam Bencana Alam: Pemaknaan dan Respons Masyarakat Wunga Sumba, Timur Indonesia."

<sup>4</sup> Ahimsa-Putra, "Etno Bencana: Etno Sains untuk Kajian Bencana;" Humaidi, "Kehidupan Ekologis Masyarakat di Lereng Merapi: Pelajaran dari Tiga Lokasi;" and Imron and Hidayat, "Dari Sabar Hingga Getok Tular: Kekuatan Agama dan Kearifan Lokal dalam Proses Kebangkitan Pasca Gempa di Kasongan," in Indianto and Kuswanjono, "Konstruksi Masyarakat Tangguh Bencana."

<sup>5</sup> Rumahuru, "Ritual, Identitas dan Komudifikasi Sosial."

<sup>6</sup> Ngelow, "Bencana dalam Perspektif Teologi Kontekstual."

<sup>7</sup> Indiyanto, "Risiko Bencana: Mempertemukan Sains dan Pengetahuan Lokal," 30.

<sup>8</sup> *Ibid.*, 36. Compare, Zubaidi et al., "Culture Wisdom of Ngata Toro in the Establishment of Territory as an Effort to Maintain the Environment."

conducted observations and interviews with a number of informants consisting of community and religious leaders, parents, young people, women and men who represented Christian Community in Galala Ambon city. To minimize the misunderstanding, the authors confirm the results of interview with informants, as well as ask for their responses to the writer's interpretation. In order to get a broader picture of the community experience regarding the related issue, the secondary data found in a number of available literature were also used and analyzed. Referring to the focus of this study, the views and practices of Christians in responding to disasters are of concern in data collection and analysis.

## 2 Literature review

### 2.1 Disaster theology

Disasters remind humans of the need to remain spiritual and retain faith in God. In much of the literature, humans' acceptance of disaster has been viewed as influenced by their level of piety.<sup>9</sup> According to Groenewald, theologians have long viewed disaster as divine punishment for human transgressions, referencing Biblical depictions of disaster and human suffering. The Bible has long been used to overcome trauma and to empower readers, and Christian theology has thus lightened the psychological burdens of disaster victims.<sup>10</sup>

Disaster has been perceived as evidencing human vulnerability and revealing public anxieties. Theology offers a means of empowering individuals by offering them salvation.<sup>11</sup> Johnston argues that religious beliefs influence how individuals make economic, social, and ecological choices that promote the greater good.<sup>12</sup> Conversely, Lawler and Salzman argue that theology is not influenced by human beings, as it draws from sacred texts, traditions, and experiences. They define theology as the science of God, as being informed by humans' experiences with God and their desire for a more mature faith.<sup>13</sup>

Numerous studies have employed a theological perspective to understand natural and social disasters in Indonesia. (1) Ngelow, "Bianglala di Atas Tsunami: Selayang Pandang Teodice Kristen;" "Bencana Dalam Perspektif Teologi Kontekstual," who examines disaster as part of Protestant theodicy;<sup>14</sup> (2) Yewangoe "Membangun Teologi Bencana: Pergumulan Teodice dan Teologi Penderitaan Allah," who examines disaster from a theodicy and suffering perspective;<sup>15</sup> (3) Erari "Gereja di Tengah Abad Ecosida: Sebuah Respon dalam Rangka Membangun Teologi Bencana di Indonesia," who considers disaster theology as part of the current ecocide era;<sup>16</sup> (4) Cambell-Nelson "Bumi Tidak Tenang: Sebuah Studi Kasus tentang Gempa Bumi di Alor," who employs the earthquake in Alor as a case study;<sup>17</sup> (5) Fasya "Agama Memanggul Derita: Tungkai Pengalaman Tsunami yang Tersisa di Aceh," who references Acehese tsunami experiences while investigating the correlation between religion and human suffering;<sup>18</sup> (6) Drewes "Tsunami dan Allah Pencipta: Ketegangan Alkotabiah antara 'Ciptaan yang Baik' (Kejadian 1) dan Pengharapan akan 'Langit dan Bumi yang Baru' (Wahyu 21)," who elucidates the concepts of Creation, Earth, and Sky as depicted in the Biblical books of Genesis and Revelations;<sup>19</sup> and

<sup>9</sup> See Fiddes (2011), Hall et al. (2010) and White (2012).

<sup>10</sup> Groenewald, "Trauma is Suffering that Remains: The Contribution of Trauma Studies to Prophetic Studies." *Acta Theologica*.

<sup>11</sup> Gregersen and Henriksen, "Endangered Selves and Societies: Theologies of Tragedy and Disaster."

<sup>12</sup> Johnston, "Protestant Rethinking of Economics for a Healthier World."

<sup>13</sup> Lawler and Salzman, "Human Experience and Catholic Moral Theology," 35.

<sup>14</sup> Ngelow, "Bencana Dalam Perspektif Teologi Kontekstual;" Ngelow, "Bianglala di Atas Tsunami."

<sup>15</sup> Yewangoe, "Membangun Teologi Bencana: Pergumulan Teodice dan Teologi Penderitaan Allah."

<sup>16</sup> Erari, "Gereja di Tengah Abad Ecosida: Sebuah Respon dalam Rangka Membangun Teologi Bencana di Indonesia."

<sup>17</sup> Campbell-Nelson, "Bumi Tidak Tenang: Sebuah Studi Kasus tentang Gempa Bumi di Alor."

<sup>18</sup> Fasya, "Agama Memanggul Derita: Tungkai Pengalaman Tsunami yang Tersisa di Aceh."

(7) Marquardt “Ketegaran Iman di Tengah Bencana: Sebuah Penelaah Alkitab tentang Ayub,” who discusses the importance of unwavering faith in times of disaster by referring to the Biblical story of Job.<sup>20</sup>

## 2.2 Local knowledge

Local wisdom is a representation of local culture and knowledge, being produced by specific communities and ethnic groups based on their unique experiences.<sup>21</sup> As stated by Dahliani, “Local Wisdom Inbuilt Environment In Globalization Era,” local wisdom is produced as humans adapt to their tangible and intangible environments.<sup>22</sup> Local wisdom includes specific technologies, philosophies, social systems, learning systems, and government systems.<sup>23</sup> It teaches people how to respect their land, their forests, their skies (the air and the atmosphere), their water, and their environments, and to honor them as they would honor their parents.<sup>24</sup>

Local knowledge is part of communities’ local wisdom. It is derived from the experiences and knowledge that develop within specific communities, and therefore are not found elsewhere.<sup>25</sup> According to Duangta, local knowledge – being derived from the traditions and experiences – is passed intergenerationally within communities.<sup>26</sup> Setten and Lein argue that local wisdom is (1) produced communally, (2) closely related with institutional order, (3) central to transferring the knowledge that is necessary for handling crises, (4) not constrained to specific localities, and (5) best approached narratively.<sup>27</sup> Vandebroek et al. “Local Knowledge: Who Cares?” adds that local knowledge systems consist of the knowledge, traditions, beliefs, institutions, and worldviews embraced by indigenous peoples, all of which are applied adaptively.<sup>28</sup>

## 3 Disasters as manifestations of God’s mercy and wrath

Where disaster occurs, religious communities often have significant theological questions. Of these, two of the most commonly asked are: (1) Is disaster a punishment from God? (2) How can God’s love and omnipotence be understood and signified? These questions show that religious communities have specific preconceptions of God and His power (including His influence on natural, social, and viral disasters).

Humans have a tendency to respond to incidents that threaten their lives by questioning God’s existence and His motives. In Biblical times, war and conflict were often understood as manifestations of

<sup>19</sup> Drewes, “Tsunami dan Allah Pencipta: Ketegangan Alkotabiah antara ‘Ciptaan yang Baik’ (Kejadian 1) dan Pengharapan akan ‘Langit dan Bumi yang Baru’ (Wahyu 21).”

<sup>20</sup> Marquardt, “Ketegaran Iman di Tengah Bencana: Sebuah Penelaah Alkitab tentang Ayub.”

<sup>21</sup> Mariani and Usmeldi, “Needs Analysis in the Development of Natural Science Student Books Connected Type Integrated of Local Cultural Wisdom.”

<sup>22</sup> Dahliani, “Local Wisdom Inbuilt Environment In Globalization Era.”

<sup>23</sup> Gunara et al., “Local Knowledge System of Kampung Naga: A Study to Investigate the Educational Values of Indigenous People in Transmitting Religious and Cultural Values.”

<sup>24</sup> Aryanto, “The Role of Local Wisdom-Based e-Eco-Innovation to Promote Firms’ Marketing Performance.”

<sup>25</sup> Basuki and Jufrida, “Identification of Potential Local Wisdom of Senamat Ulu Village (Electrical Independent Village) as a Source of Science Learning.” See also Sunarto, “Kecerdasan Tradisional untuk Kajian Kebencanaan Dalam Perspektif Hermeneutika;” Veronika, “Memahami Sistem Pengetahuan Budaya Masyarakat Pegunungan Tengah, Jayawijaya, Papua dalam Konteks Kebencanaan;” and Suryanti and Marfai, “Adaptasi Masyarakat Kawasan Pesisir Semarang Terhadap Bahaya Banjir Pasang Air Laut (Rob).”

<sup>26</sup> Duangta et al., “Knowledge Management of Pomelo Production System in Northeast Thailand: Case Study of the Pomelo Farmer Group in Ban Thaen District.”

<sup>27</sup> Setten and Lein, “‘We Draw on What We Know Anyway:’ The Meaning and Role of Local Knowledge in Natural Hazard Management.”

<sup>28</sup> Vandebroek et al., “Local Knowledge: Who Cares?”

God's wrath. Disasters such as fire, floods, plagues, and famine were perceived as punishments for human transgressions. Similarly, individual pain and suffering were understood as punishment for their doubts, for their questions as to why God allowed disaster to occur and let them suffer. Conversely, wartime victories, good harvests, and other communal and individual successes were attributed to God's love and omnipotence. Few understood disaster as showing God's love – even as pastors, priests, and other religious leaders urged their congregations to see all things as manifestations of God's love.

Based on a review of the literature as well as research conducted in the field, two opposing views may be identified. First are those who perceive disaster as punishment for human transgressions, as a form of divine retribution imposed upon the masses; this perspective has dominated Christian theology. Second are those who understand disaster as a manifestation of God's power, love, and grandeur, who view them as tangible manifestations of divinity. Such a perspective has been relatively uncommon.

The framing of disaster in Christianity can be understood through a reading of the Bible. Take, for example, the story of Noah and the Flood (Genesis 6:9 through 7:1–24) and of Sodom and Gomorrah (Genesis 19:1–29). In both stories, disaster is narrated as God's wrath, as a divine retribution for humans' sins and transgressions.<sup>29</sup> Similar stories are found in Greek and Roman folklore, as well as in the legends of Indonesia's indigenous people. Disaster occurs where human beings fail to follow God's teachings and obey His will.

Reviewing the literature on disaster theology, it is apparent that Christian theologians have built their understandings on humanity's historical and contemporary suffering, with theodicy playing a central role in disaster theology.<sup>30</sup> Such a perspective (or, more accurately, interpretation) is not necessarily mistaken, but it problematically focuses on God's wrath rather than His love. The authors offer a different perspective, seeking to understand disaster as a manifestation of God's mercy. The salvation of Noah, his family, and the animals on the Ark is a manifestation of God's love for all of His creation. Likewise, the salvation of Lot and his daughters from the destruction of Sodom and Gomorrah can be understood as God's means of returning His faithful to righteousness.<sup>31</sup>

This study shows that the natural disasters experienced in Ambon and elsewhere have not only created suffering and threatened human lives, but also manifested God's love. Survivors of disasters recognize that their salvation is only possible because of God's love; what, then, of disasters' victims? Victims tend to question God's existence, act as though He does not exist or simply lets them suffer. The authors reject such a perspective, as human beings cannot understand God's plans for His creation. If disasters are perceived as manifestations of God's love and mercy, it may be recognized that God allows natural mechanisms to operate *because* He loves all of Creation; through disaster, humans are forced to adapt and maintain balance. Humans are provided with recognizable signs of disaster, including dreams and strange experiences. However, many ignore these signs until after the fact, as commonly mentioned by victims after the fact.<sup>32</sup>

The authors argue that disaster theology is best discussed as a manifestation of God's mercy and love. At the same time, they recognize that all disasters – natural, social, viral, etc. – have victims, who cannot readily understand disaster as manifestations of God's love. Disaster victims have always questioned why God allows them to suffer pointlessly. They fail to recognize that, even though God controls nature, He still honors His creation and allows the faithful to adapt to changing times. By recognizing God's involvement in their lived theology, victims would have no reason to fear the future and whatever disasters it may bring.

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<sup>29</sup> Compare Chester, "Theology and Disaster Studies: The Need for Dialogue."

<sup>30</sup> Marquardt, Drewes, Ngelow, Yewangoe, Cambell-Nelson, Fasya.

<sup>31</sup> Compare O'Mathúna.

<sup>32</sup> Rumahuru, "Pengetahuan dan Respon Masyarakat Kota Ambon Terhadap Bencana: Kajian Agama dan Budaya."

### 3.1 Entities of God's love for disaster victims

For every person who becomes the victim of the disaster, it is difficult for them to accept the fact that God is with them when events certain disaster befalls them. As the time goes by, the disaster victims reflected and realized that the events experienced by them are the same with other people in other places, and it turned out that the events they experienced could not be separated from God's approval as the creator and owner of this life.<sup>33</sup>

In this context, study has found that those people such as Indonesian people in Yogyakarta, Nusa Tenggara and Ambon City who have experienced being victims of nature and social disasters have changed attitudes in terms of relating to others, relating to God, and relating to nature. For example, in Galala Ambon city since they experienced natural disaster (tsunami) in 1950, until now they have always maintained the balance of the marine ecosystem. Facing flooding that has potential to be experienced in 1999–2002, Galala people who had been victims of conflict between communities over religious burials (Islam and Christianity) in Ambon City, now they are more open to interact with each other, especially Muslim who ever came into conflict with them.<sup>34</sup>

From various catastrophic events experienced, the Galala people found that there was a great love of God in their lives. God was still present in each of the events. To remind God's participation in their lives and at the same time fully surrender themselves to God, the Galala people always do night prayers every day in their respective communities and congregational worship every year to remember and be grateful for the disaster they experienced.

## 4 Dialogue between local knowledge, modern science, and religious theology: an approach for disaster mitigation in Indonesia

Disasters show that nature, as with human beings, has specific mechanisms for ensuring its continued survival. Communities have approached this phenomenon diversely, seeking to understand nature and create balance, and use disasters to critically consider their own activities and empower themselves. Disasters make new discoveries possible, and thus contribute significantly to the advancement of science and to humanity's continued survival. Humans do not simply accept disasters; they consider disasters, mitigate their effects, and attempt to find solutions. Theologically, God created humans in His image, with the capacity to consider what it means to be subjects of God. God would not allow humans, as part of His creation, to perish; rather, He desires for them to maximally develop their abilities and advance themselves. As such, this section seeks to examine the dialectics of local knowledge, modern science, and religious theology within a disaster management context. To provide a concrete basis for this study, the authors conducted field research in Ambon City, Maluku Province, in 2019;<sup>35</sup> they also referred to cases and examples from elsewhere.

A review of the literature and research in the field found that communities perceive disaster as part of a natural cycle, as unavoidable yet requiring action. Communities require appropriate means of dealing with disaster and ensuring their survival. In the *negeri* (villages) of Ambon, for example, residents participate in community cleaning initiatives known as *cuci negeri*; these are intended not only to clean communities, but

<sup>33</sup> In the context of the Biblical text, there are many stories that show that God allows disaster to happen to humans, but through these disasters all humans are aware of how great God's love is to save and restore. See Job in Job 9, and Joseph in Genesis 50.

<sup>34</sup> Rumahuru, "Pengetahuan dan Respon Masyarakat Kota Ambon Terhadap Bencana: Kajian Agama dan Budaya."

<sup>35</sup> Ibid.

also to create awareness of the importance of conservation for maintaining balance. At the same time, the people of Maluku have a form of local wisdom known as *sasi*, which is intended to maintain balance and ensure sustainability.<sup>36</sup>

In the *negeri* of Batu Merah and Galala, where field research was conducted, residents' experiences with disaster have significantly shaped local knowledge, theological perspectives, and views of disaster and disaster management. For example, they recognize natural portents of monsoons, earthquakes, floods, and tsunamis, and thus can anticipate such natural disasters. Informants stated that, because they are one with their environments, they recognize these signs – known locally as *nanaku* – and can thus prepare for extreme situations. They have specific mechanisms for avoiding disaster, including evacuation routes and gathering points, which they have incorporated into their everyday lives for centuries.<sup>37</sup>

It is thus evident that local communities have combined their local knowledge with modern science and religious theology in responding to disaster. These three sources of knowledge are perceived as complementary, as being inexorably intertwined; indeed, communities perceive their local knowledge and religious beliefs as facilitating their understanding of modern science. This includes, for example, not only the information that is conveyed through formal education systems, but also the knowledge that is transferred through religious institutions. The modern concept of conservation, for example, correlates with religious teachings about the environment as well as the traditional practice of *sasi*. So strongly are these correlated that *sasi*, once solely the purview of traditional institutions, has been taken over by church institutions.<sup>38</sup>

In local knowledge systems, disaster mitigation is commonly perceived as part of nature's cycle. Papuans, for example, believe *teh aro lako* ("nature is me"). They liken Mount Erstberg and Mount Grasber to mothers, viewing them as necessary for human life. As such, Papuans attempt to manage natural resources as sustainably as possible. Similarly, the Searawai people of Bengkulu have a belief called *celako kumali*, which is deeply rooted in their agricultural traditions. The Kenyah Dayaks of East Kalimantan have *tana'ulen*.<sup>39</sup> Meanwhile, traditional homes in West Sumatra are designed to mitigate disasters' potential consequences, while mutual support mechanisms are used to promote sustainability.<sup>40</sup>

#### 4.1 Linking local knowledge and modern science: learning from society's experiences

Given that the country is prone to natural disasters, Indonesia must refer to local wisdom in order to promote disaster mitigation and management. According to Sudibyakto et al.<sup>41</sup> Indonesia's vulnerability to natural disaster may be attributed to geographic, climate, geological, and socio-demographic factors. Being located along the Pacific Ring of Fire, Indonesia experiences frequent volcanic eruptions, both on land and at sea. The archipelago is also prone to flooding, tsunamis, earthquakes, landslides, and other natural disasters, all of which can occur at any moment.

The province of Maluku, where this study was conducted, is no less disaster prone. Sitting on the Banda Sea, the land of Maluku, with its mountains, valleys, and beaches, sits along the Pacific Ring of Fire. The Maluku Islands sit where the main Asian and Pacific plates meet, and as such earthquakes and tsunamis are

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> Jundiani, "Local Wisdom in Environmental Protection and Management;" Compare Veronika, "Memahami Sistem Pengetahuan Budaya Masyarakat Pegunungan Tengah, Jayawijaya, Papua dalam Konteks Kebencanaan;" Tas et al., "Flood Disaster Vulnerability in Informal Settlements in Bursa, Turkey."

<sup>40</sup> Zulfadrim et al., "The Implementation of Local Wisdom in Reducing Natural Disaster Risk: A Case Study from West Sumatra."

<sup>41</sup> Sudibyakto, "Menuju Masyarakat Tangguh Bencana: Tinjauan dari Fenomena Multi-bencana di Indonesia;" Compare Widiyanto, "Bertahan di Antara Letusan Gunung Awu."

common.<sup>42</sup> According to data from the Disaster Mitigation and Response Agency of Maluku, Maluku often experiences disasters such as floods, earthquakes, landslides, tsunamis, drought, fires, volcanic eruptions, and extreme weather.<sup>43</sup>

Although almost all parts of Indonesia are prone to disaster, mitigation efforts remain top-down and government-centered. The people look to the government in times of trouble. As such, local knowledge must be optimally used to ensure that disaster mitigation and response efforts meet their needs.

Studies in Ambon and in other parts of Indonesia have shown that communities have their own local knowledge about disaster, which they have developed based on their experiences. This local knowledge enables them to recognize the portents of disaster, and informs their interactions with the Creator and their congregational worship. In the Ambonese *negeri* of Batu Merah and Galala, for example, although local knowledge about disaster is derived from previous experiences (including tsunamis, floods, and landslides), it is used to anticipate a range of future disasters. The people of Batu Merah, for example, recognize that floods and landslides are cyclical, often being linked to the seasons. As one resident of Batu Merah, whose house is located along the Way Batu Merah River, explained:

Around here, people have long understood the characteristics of the mountain. People understand the strength of the mountain. Those who live along the river banks, they know exactly when floods will happen, and so they can anticipate them. (SS, Batu Merah leader, August 26, 2019)

Another informant described the portents of disaster:

Generally, they look at the clouds. If things are cloudy during the day, but red at night, then there will be heavy rain. However, if the water is dark, there will be no flooding, no matter how heavy the rain. (M, Batu Merah leader, September 5, 2019)

Such responses indicate that the people of Batu Merah have their own specific views of disasters and their potential consequences. As such, although they understand that the future is uncertain, they recognize certain signs as portents of disaster. Likewise, they do not fear disaster, as they can see its signs in their everyday lives. They believe that, for those who can recognize the signs, disaster will never occur suddenly. It can always be predicted.

Unlike the people of Batu Merah, the people of Galala – whose oral traditions include multiple mentions of earthquakes and tsunamis (including in 1671, 1673, 1674, and 1950)<sup>44</sup> – recognize not only the signs of flooding, but also the signs of earthquakes and tsunamis. Long before the government began socializing information on earthquakes and tsunamis, and long before the government created its own evacuation routes, community members had their own evacuation zones and gathering points that they used when a tsunami or flood was imminent.

As mentioned previously, one form of local wisdom used for disaster mitigation in Ambon is *cuci negeri*. Such a practice, which has become deeply ensconced in local culture, contains philosophical values that are important for communities and individual members. The writers perceive *cuci negeri* as more than a matter of cleaning; it is a means for stimulating reflection and introspection, both of which are necessary to overcome personal shortcomings and mitigating potential disasters. It encompasses specific understandings of local knowledge, modern science, and religious theology, all of which serves to link individuals with their communities and environments. This tradition, which is derived from their everyday interactions with nature, offers the people of Ambon a means of mitigating disaster.

Unfortunately, such knowledge is no longer recognized or practiced by younger generations, who refer primarily to modern science. Local knowledge is often belittled, being ignored in favor of the modern science taught in schools and educational institutions. However, a study conducted by Indiyanto in villages

<sup>42</sup> Ririmasse, "Bencana Masa Lalu di Kepulauan Maluku: Pengetahuan dan Pengembangan bagi Studi Arkeologi," 95.

<sup>43</sup> <https://bpbdl.malukuprov.go.id/2017/10/30/data-bencana-provinsi-maluku-bulan-juli-th-2017/>, accessed on March 14, 2019.

<sup>44</sup> Rumahuru, "Pengetahuan dan Respon Masyarakat Kota Ambon Terhadap Bencana: Kajian Agama dan Budaya," 19–20.

around Mount Merapi in Yogyakarta, Indonesia, has shown the importance of maintaining a dialog between local knowledge and modern science. Disaster scholars have described the eruption process as “beginning with extrusion, followed by the formation of a lava dome, the collapse of the dome, the creation of lava blockages, and the venting of gasses.” Meanwhile, residents of local villages recognize the eruption process as beginning with the venting of *wedhus gembel* (hot gasses) “as well as natural signs such as animals fleeing the mountainside, air temperatures increasing, and rumblings coming from Mount Merapi.”<sup>45</sup>

Villagers often have difficulty understanding the academic language used by scholars to describe disasters. As such, they seek different sources of knowledge and means of understanding natural disasters. They use common language, as well as symbols, legends, and myths, to convey knowledge about disaster. Both modern science and local knowledge can potentially describe the same phenomena and thus be used for disaster mitigation. For example, an active seismograph indicates increased volcanic activity; at the same time, local peoples recognize and act on other signs, such as the venting of brown gasses.<sup>46</sup>

In order to facilitate mitigation efforts, it is important to recognize local understandings and knowledge of disaster. However, such knowledge is limited to specific individuals; it is not held by the general public. Local knowledge lacks the “power” to be accepted by all, despite its positive effects on residents’ lives. The authors thus argue that the Indonesian government must recognize and integrate local knowledge into their disaster education and mitigation efforts.

## 4.2 Religious knowledge, local knowledge, and modern science

Religion continues to have a significant effect on communities, and it can be combined with other types of knowledge to promote disaster management and mitigation. Communities’ prayers are not meant as a response to disaster, but rather as a strategy for preventing disaster. How can prayer prevent disaster? AL, an academic and community leader in Batu Merah, explained:

What’s clear is that people always pray to prevent disaster. In Islam, for morning worship, there is a prayer called *Doa Kumit*. This is intended specifically to prevent disaster. Why do disasters happen, then? After looking over things, it is because of environmental degradation. If the environment has been harmed, then disaster will occur. (AL, academic at IAIN Ambon, August 28, 2019)

AL did not state that prayer is unimportant, or that it is useless. He only asked why disaster continues to occur. He emphasizes that prayer, when not accompanied by appropriate attitudes and behaviors, cannot prevent disaster. Prayer cannot be understood solely as communication or as a means of conveying desires to the Almighty. AL subsequently elucidated several strategies that can be (and have been) used to prevent disaster:

The main strategy is restoring nature to the way it was. Reforestation is necessary [...] people live on the slopes of mountains, and if this does not occur, if environmental degradation continues, they will need to be relocated. But, Alhamdulillah, they’ve made their own rules. They have prohibited the felling of trees and the use of slopes for gardening. At the same time, they have sought to transform peoples’ mindsets, to make sure that they are environmentally conscious. These efforts have involved sermons, public officials, and whatnot. Flooding may occur because people discard waste in the river, for example, and so the government, the village chiefs, and the village administrators must socialize the importance of waste management.

<sup>45</sup> Indiyanto, “Risiko Bencana: Mempertemukan Sains dan Pengetahuan Lokal,” 38.

<sup>46</sup> *Ibid.*, 39.

AL also highlighted the importance of involving stakeholders in disaster mitigation efforts. From the neighborhood level through the regional level, government, religious, and social leaders must create public awareness regarding environmental issues.

The people of Galala, for example, have involved religious institutions in their socialization of disaster and disaster mitigation. The Galala Village Secretary explained that, by working with the church, the government can convey important messages to residents more easily. As such, the Church is actively involved in disaster communication. VJ explained:

Here, we are two *negeri* and one congregation. Sometimes, when the village government speaks, people don't listen, but if the Church speaks people listen. It is therefore very important to involve the church, because many people think about religion. In Church, if the council or the priest speaks, people listen. If the village government speaks, people don't listen, or very few do. People have difficulty listening to the village government, but if the Church conveys its messages, people act quickly. At the Church, they have programs for socializing disaster. They invite knowledgeable people, like from the Disaster Mitigation and Response Agency or from the provincial government, and organize their congregations. They explain that, if sirens sound, people should go to these places. (VJ, Galala social leader, August 29, 2019)

The people of Galala approach disaster with spiritual and religious approaches, using prayer and worship to communicate with God. The people of Galala hold regular Sunday prayers, as well as annual sermons to commemorate the tsunami of October 8, 1950.

Prayers or service carried out by Christians in facing disasters are nothing but a form of awareness of human limitations and the knowledge they have in dealing with disasters. This requires complete surrender and an attitude changing. This study found that apart from praying or worshiping, Christians also serve by maintaining the cleanliness of rivers and beaches, providing green open spaces, keeping mountains from being deforested and ensuring that there is no development on mountain slopes and riverbanks. This is known by the local community as "*kalesang negeri*" which means keeping the environment clean, ensuring the relationship between humans and each other and humans and God. In this case "*kalesang negeri*" is a part of local knowledge which is built from the dialectic of modern science and religion.

This highlights that religious institutions contribute significantly to developing public understandings of disaster. In doing so, they combine religious teachings, local knowledge, and modern science to ensure that they reach all elements of society. Religious institutions have a strategic role in shaping how disasters and other phenomena are interpreted. As such, it is necessary to combine religious teachings, local knowledge, and modern science.

## 5 Conclusion

This article argued that the disaster can be seen as the appearance God's grace for His creation. The findings however indicate that some associate certain catastrophic event with suffering and punishment caused by human sin and disobedience to God. This study put this as the importance of God's position as a person full of love for His creation and always exist for His creation in every disaster events. This study has shown, however, that disasters are ways for God to glorify His creation. It concludes, first, that God shows his love and mercy in all disasters, as well as His desire to maintain balance in everything. Christian theology must thus recognize disaster as part of God's plan, as His expression of His love for His creation. *Second*, disaster is part of a natural cycle. **Human beings must use their logical thoughts to find solutions, and this can only be maximally realized through a combination of religious teachings, local knowledge, and modern science. These three aspects contribute in shaping people's perspective on disaster.** In this case a dialogue between local wisdom, modern science and theology is needed as a strategy to build understanding and disaster resilience. This is considered important so that knowledge that is built up in the community about disasters is integrated and holistic in nature.

This study recommends further studies related to the integration of local and modern knowledge in terms of understanding disasters as well as ways of doing theology from the context of disasters victims in an integrated and holistic manner.

## References

- Abdullah, Irwan. *Konstruksi dan Reproduksi Sosial atas Bencana Alam*. Yogyakarta: Sekolah Pascasarjana Universitas Gadjah Mada, 2008.
- Ahimsa-Putra, Hedy S. "Etno Bencana: Etno Sains untuk Kajian Bencana." In *Respons Masyarakat Lokal atas Bencana*, edited by A. Indiyanto and A. Kuswanjono, 7–24. Yogyakarta: CRCS and PT Mizan Pustaka.
- Aryanto, Vincent D. W. "The Role of Local Wisdom-based e-eco-innovation to Promote Firms' Marketing Performance." *International Journal of Social Ecology and Sustainable Development* 8:1 (2017), 17–31. doi: 10.4018/ijssed.2017010102.
- Basuki, Fibrika R., Jufrida, Jurfida, and Suryanti, K. "Identification of Potential Local Wisdom of Senamat Ulu Village (Electrical Independent Village) as a Source of Science Learning." The 2018 International Conference on Research and Learning of Physics, IOP Conf. Series: *Journal of Physics: Conference Series* 1185 (2019), 012102. doi: 10.1088/1742-6596/1185/1/012102.
- Berke, Philip, Smith, Gavin, and Lyles, Ward. "Planning for Resiliency: Evaluation of State Hazard Mitigation Plans under the Disaster Mitigation Act." *Natural Hazards Review* 13:2 (2012), 139–49.
- Buckle, Philip. "Disaster: Mandated Definition, Local Knowledge and Complexity." In *What Is a Disaster? New Answers to Old Questions*, edited by R. W. Perry and E. L. Quarantelli. USA: International Research Committee on Disasters, 2005.
- Campbell-Nelson, John. "Bumi Tidak Tenang: Sebuah Studi Kasus tentang Gempa Bumi di Alor." In *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, Ngelow et al., 95–110. Makasar: Oase Intim., 2006.
- Chester, David K. "Theology and Disaster Studies: The Need for Dialogue." *Journal of Volcanology and Geothermal Research* 146:4 (2005), 319–28.
- Chester, David K, Duncan, Angus M., and Dibben, Christopher R. J. "The Importance of Religion in Shaping Volcanic Risk Perceptions in Italy, with Special Reference to Vesuvius and Etna." *Journal of Volcanology and Geothermal Research* 172:3–4 (2008), 216–28.
- Coppola, Damon P. *Introduction to International Disaster Management*. Oxford: Elsevier, 2015.
- Dahlani, Ispurwono Soemarno, and Purwanita, Setijanti. "Local Wisdom Inbuilt Environment in Globalization Era." *International Journal of Education and Research* 3:6 (2015), 157–66.
- Davis, Edward B., Kimball, Cynthia N., Aten, Jamie D., Andrews, Benjamin, Van Tongeren, Daryl R., Hook, Joshua N., Park, Crystal L. "Religious Meaning Making and Attachment in a Disaster Context: A Longitudinal Qualitative Study of Flood Survivors." *Journal of Positive Psychology* 14:5 (2019), 659–71. doi: 10.1080/17439760.2018.1519592.
- Drewes, Barend F. "Tsunami dan Allah Pencipta: Ketegangan Alkitabiah antara 'Ciptaan yang Baik' (Kejadian 1) dan Pengharapan akan 'Langit dan Bumi yang Baru' (Wahyu 21)." In *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, edited by Ngelow et al., 113–22. Makasar: Oase Intim., 2006.
- Duangta, Kanchana, Borisudthi, Yos, and Simaraks, Suchint. "Knowledge Management of Pomelo Production System in Northeast Thailand: Case Study of the Pomelo Farmer Group in Ban Thaen District." *Forest and Society* 2 (2018), 162–72.
- Erari, Karel Phil. "Gereja di Tengah Abad Ecosida: Sebuah Respon dalam Rangka Membangun Teologi Bencana di Indonesia." In *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, edited by Ngelow et al., 327–48. Makasar: Oase Intim., 2006.
- Fasya, Teuku K. "Agama Memanggul Derita: Tungkal Pengalaman Tsunami yang Tersisa di Aceh." In *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, edited by Ngelow et al., 73–94. Makasar: Oase Intim., 2006.
- Fiddes, Paul S. "The Creative Suffering of God." In *The Creative Suffering of God*, 2011. doi: 10.1093/acprof:oso/9780198263470.001.0001.
- Ford, Keith. "The Caribbean Disaster Mitigation Project." *Environmental Hazards* 10:1 (2011), 23–9. doi: 10.3763/ehaz.2011.0003.
- Giri, Dhanashree, and Vats, Aman. "Natural Disasters in India: A Comparative Study of Print Media's Approach of Top Four English Dailies' Coverage of Uttarakhand Floods." *Indian Journal of Public Administration* 64:1 (2018), 73–86. doi: 10.1177/0019556117735453.
- Gregersen, Niels H., and Henriksen, Jan-Olav. "Editorials: Endangered Selves and Societies: Theologies of Tragedy and Disaster." *Dialog* 56:4 (2017), 331–5. doi: 10.1111/dial.12352.
- Groenewald, Alphonso. "Trauma is Suffering that Remains. The Contribution of Trauma Studies to Prophetic Studies." *Acta Theologica* 26:Suppl (2018), 88–102. doi: 10.18820/23099089/actat.Sup26.5.

- Gunara, Sandie, Sutanto, Toni S., and Cipta, Febby. "Local Knowledge System of Kampung Naga: A Study to Investigate the Educational Values of Indigenous People in Transmitting Religious and Cultural Values." *International Journal of Instruction* 12:3 (2019), 219–36.
- Hall, M. Elisabeth L., Langer, Richard, and McMartin, Jason. "The Role of Suffering in Human Flourishing: Contributions from Positive Psychology, Theology, and Philosophy." *Journal of Psychology and Theology* 38:2 (2010), 111–21. doi: 10.1177/009164711003800204.
- Humaidi, Zuhri, Widiyanto, Nur, Wismayanti Yanuar F., Gumilang, Karina A. R. "Kehidupan Ekologis Masyarakat di Lereng Merapi: Pelajaran dari Tiga Lokasi." In *Respons Masyarakat Lokal atas Bencana*, edited by A. Indiyanto and A. Kuswanjono, 127–58. Yogyakarta: CRCS and Mizan, 2012.
- Immanuel, Jimmy M. *Marapu dalam Bencana Alam: Pemaknaan dan Respons Masyarakat Wunga Sumba Timur Indonesia*. Yogyakarta: CRCS UGM, 2013.
- Imron, Ali, and Hidayat Aat. "Dari Sabar Hingga *Getok Tular*: Kekuatan Agama dan Kearifan Lokal dalam Proses Kebangkitan Pasca Gempa di Kasongan." In *Respons Masyarakat Lokal atas Bencana*, edited by A. Indiyanto and A. Kuswanjono, 207–28. Yogyakarta: CRCS and Mizan, 2012.
- Indiyanto, Agus. "Risiko Bencana: Mempertemukan Sains dan Pengetahuan Lokal." In *Respons Masyarakat Lokal atas Bencana*, edited by A. Indiyanto and A. Kuswanjono, 25–43. Yogyakarta: CRCS and Mizan, 2012.
- Johnston, Carol F. "A Protestant Rethinking of Economics for a Healthier World." *American Journal of Economics and Sociology* 78:2 (2019), 363–408. doi: 10.1111/ajes.12268.
- Jundiani. "Local Wisdom in the Environmental Protection and Management." *IOP Conference Series: Earth and Environmental Science* 175 (2018), 012130. doi: 10.1088/1755-1315/175/1/012130.
- Kestenbaum, Allison, Fleischman, Catherine A., Dabis, Marta, Birnbaum, Bette, and Dunn, Laura B. "Examination of Spiritual Needs in Hurricane Sandy Disaster Recovery Through Clinical Pastoral Education Verbatims." *The Journal of Pastoral Care & Counseling* 72:1 (2018), 8–21. doi: 10.1177/1542305017748663.
- Lawler, Michale G., and Salzman, Todd A. "Human Experience and Catholic Moral Theology." *Irish Theological Quarterly* 76:1 (2011), 35–56. doi: 10.1177/0021140010387976.
- Mallick, Bishawjit, and Vogt, Joachim. "Social Supremacy and its Role in Local Level Disaster Mitigation Planning in Bangladesh." *Disaster Prevention and Management: An International Journal* 20:5 (2011), 543–56. doi: 10.1108/0965356111178970.
- Mariani, Dina, and Usmeldi. "Needs Analysis in the Development of Natural Science Student Books Connected Type Integrated of Local Cultural Wisdom." *Journal of Physics: Conference Series* 1185 (2019), 012071. doi: 10.1088/1742-6596/1185/1/012071.
- Marquardt, Wolfgang. "Ketegaran Iman di Tengah Bencana: Sebuah Penelaah Alkitab tentang Ayub." In *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, edited by Ngelow et al., 171–84. Makasar: Oase Intim., 2006.
- Ngelow, Zakaria J. "Bianglala di Atas Tsunami: Selayang Pandang Teodice Kristen." In Ngelow et al., *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, 201–20. Makasar: Oase Intim., 2006.
- Ngelow, Zakaria J. "Bencana dalam Perspektif Teologi Kontekstual." *Jurnal Kajian Politik Lokal dan Sosio-Humaniora* 7:1 (2007), 37–43.
- O'Mathúna, Donal P. "Christian Theology and Disasters: Where is God in All This?" In *Disasters: Core Concepts and Ethical Theories*. 2018.
- Paton, Douglas, and Johnston, David. "Disasters and Communities: Vulnerability, Resilience, and Preparedness." *Disaster Prevention and Management* 10:4 (2001), 270–7.
- Perry, Ronald W., and Quarantelli, E. L. (eds.). *What Is a Disaster? New Answers to Old Questions*. USA: International Research Committee on Disasters, 2005.
- Ririmasse, Marlon. "Bencana Masa Lalu di Kepulauan Maluku: Pengetahuan dan Pengembangan bagi Studi Arkeologi." *Amerta, Jurnal Penelitian dan Pengembangan Arkeologi* 32:2 (2014), 77–154.
- Rumahuru, Yance Z. *Ritual, Identitas dan Komodifikasi Sosial*. Yogyakarta: Phinisi Press, 2014.
- Rumahuru, Yance Z. "Pengetahuan dan Respon Masyarakat Kota Ambon Terhadap Bencana: Kajian Agama dan Budaya", Research report, IAKN Ambon, 2019.
- Schlehe, Judith. "Anthropology of Religion: Disasters and the Representations of Tradition and Modernity." *Religion* 20: (2010), 112–20. doi: 10.1016/j.religion.2009.12.004.
- Setten, Gunhild, and Lein, Hoakon. "'We Draw on What We Know Anyway': The Meaning and Role of Local Knowledge in Natural Hazard Management." *International Journal of Disaster Risk Reduction* 38 (2019), 101184. doi: 10.1016/j.ijdr.2019.101184.
- Sudibyakto, Retnawati Arry, Suryanti Emy D, Hisbaron Dyah. "Menuju Masyarakat Tangguh Bencana: Tinjauan dari Fenomena Multi-bencana di Indonesia." In *Konstruksi Masyarakat Tangguh Bencana*, A. Indiyanto and A. Kuswanjono, 7–31. Yogyakarta: CRCS and Mizan, 2012.
- Sunarto. "Kecerdasan Tradisional untuk Kajian Kebencanaan Dalam Perspektif Hermeneutika." *Jurnal Kebencanaan Indonesia* 1:5 (2008), 323–34.
- Suryanti, Emi D., and Marfai, Muh Aris. "Adaptasi Masyarakat Kawasan Pesisir Semarang Terhadap Bahaya Banjir Pasang Air Laut (Rob)." *Jurnal Kebencanaan Indonesia* 1:5 (2008), 335–46.

- Taş, Murat, Taş, Nilufer, Durak, Selen, and Atanur, Gul. "Flood Disaster Vulnerability in Informal Settlements in Bursa, Turkey." *Environment and Urbanization* 25:2 (2013), 443–63. doi: 10.1177/0956247813501134.
- Vandebroek, Ina, Reyes-García, Victoria, de Albuquerque, Ulysses P., Bussmann, Reiner, and Pieroni, Andrea. "Local Knowledge: Who Cares?" *Journal of Ethnobiology and Ethnomedicine* 7:1 (2011), 35. doi: 10.1186/1746-4269-7-35.
- Veronika, Leny. "Memahami Sistem Pengetahuan Budaya Masyarakat Pegunungan Tengah, Jayawijaya, Papua dalam Konteks Kebencanaan." *Antropologi Indonesia* 34:2 (2013), 134–51.
- White, R. "Levinas, The Philosophy of Suffering, and the Ethics of Compassion." *Heythrop Journal – Quarterly Review of Philosophy and Theology* 53: (2012), 111–23. doi: 10.1111/j.1468-2265.2011.00707.x.
- Widiyanto, Nur. "Bertahan di Antara Letusan Gunung Awu: Mitos Tenggelamnya Maselihe dan Adaptasi Kultural Penduduk Kampung Kendahe." In *Respons Masyarakat Lokal atas Bencana*, edited by A. Indiyanto and A. Kuswanjono, 95–126. Yogyakarta: CRCs and Mizan, 2012.
- Yewangoe, Andreas A. "Membangun Teologi Bencana: Pergumulan Teodice dan Teologi Penderitaan Allah." In *Teologi Bencana: Pergumulan Iman dalam Konteks Bencana Alam dan Bencana Sosial*, edited by Ngelow et al., 221–52. Makasar: Oase Intim., 2006.
- Zubaidi, Fuad, Santosa, Happy R., and Faqih, Muhammad. "Culture Wisdom of Ngata Toro in the Establishment of Territory as an Effort to Maintain the Environment." *International Journal of Education and Research* 2:6 (2014), 23–36.
- Zulfadrim, Z., Toyoda, Y., and Kanegae, H. "The Implementation of Local Wisdom in Reducing Natural Disaster Risk: A Case Study from West Sumatera." *IOP Conference Series: Earth and Environmental Science* 106:1 (2018). doi: 10.1088/1755-1315/106/1/012008.

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