Media Engagement in Communicating Disaster Risk After the 2004 Indian Ocean Tsunami: A Perspective from Aceh

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Abstract. The conflict that lasted in Aceh for approximately 32 years, followed by the tsunami of 2004, had a significant impact by causing numerous casualties as well as material and nonmaterial losses. As a result, the media in Aceh recognized the need to be more active in reporting news about disasters and disaster mitigation. The role of the media as a liaison between the government and the community has been regulated by law, including as related to the publication of disaster mitigation efforts. The purpose of this study is to determine the role and involvement of the media in supporting disaster risk reduction and communicating disaster risks through the Acehnese community. This study used descriptive qualitative methods to obtain an actual picture of the involvement and role of the media in Aceh in communicating disaster risk. The results of this study indicate that the media in Aceh have not played a significant role in providing disaster risk information. Disaster programs trended and presented in the media mostly during the emergency stage, being less common after the disaster event.

Keywords: disaster risk communication; disaster; media; tsunami Aceh

1. Introduction

Aceh experienced a lengthy armed conflict in which the Free Aceh Movement (Gerakan Aceh Merdeka, GAM) demanded Aceh's independence from the Unitary State of the Republic of Indonesia (Negara Kesatuan Republik Indonesia, NKRI). To secure the situation, the Government of Indonesia established various operations, including the Military Operations Area (Daerah Operasi Militer, DOM; 1989–1998), the Military Emergency Status (2001–2002) and Civil Emergency Status (2003–2004). This conflict destroyed public facilities and infrastructure, as well as individual property, while residents became victims of violence and human rights violations. The conflict also contributed to destroying the customs and cultural institutions of the Acehnese people [1].

In this difficult situation, Aceh experienced twin natural disasters in December 2004: an earthquake and tsunami. Massive damage was also caused in Thailand, Sri Lanka, and other countries around the Indian Ocean. The destruction caused by this natural disaster compounded that caused by the conflict, resulting in 127,720 deaths in Aceh and 93,285 people being reported missing [2]. The community...
lacked knowledge of tsunamis, even though tsunamis had occurred in several other regions in Indonesia. As stated by [3] in a paper that collected data on tsunami events in eastern Indonesia and data from other research results, in a ten-year period, Indonesia experienced 6 tsunamis [4]. Aceh, meanwhile, had experienced a tsunami in 1907 on Simeulue Island [5].

The information presented from the 2004 Indian Ocean tsunami should be a source of knowledge for disaster education and DRR efforts. During the conflict, the media in Aceh reported more about the conflict and related topics than the tsunamis that occurred in other parts of Indonesia. On the other hand, media restriction due to the conflict situation also contributed to the media's lack of coverage of disasters. As such, it was not surprising that the information presented by the media seemed very monotonous.

Promoting physical reconstruction and improving the role of the media after the 2004 Indian Ocean tsunami required a lot of support from various parties, including international assistance. Security guarantees were needed for international representatives. The Government of Indonesia (GoI) and GAM agreed to sign a Memorandum of Understanding (MoU) on August 15, 2005. Under this momentum, Aceh's security condition slowly began to recover, and people outside Aceh became involved in reconstruction and peace building.

Since that time, there has been an increase in the number of media and information related to disaster and peace. Donors have also funded the development of media to spread information through the Acehnese community. During the rehabilitation and reconstruction phase, most media presented a significant amount of disaster information, including the recovery process and disaster education. This situation was a window and opportunity for the Acehnese people to refine disaster knowledge.

Law no. 24 of 2007 concerning Disaster Management [6] specifies that communities have the right to information related to disasters as part of disaster risk communication. For this reason, the role of the media is very important, as it plays an intermediary/liaison function between the source of information and the recipients of information. This reflects the argument by Morgan et al. (2007) [7] that "risk communication is the exchange of information and views on risk and all related parties, between the experts/risk assessors, managers, and recipients or other related parties, aiming to provide correct, relevant and accurate information clearly and easily understood by groups that are targeted in the risk communication". The role of the media was also mentioned in Law No. 40 of 1999 concerning the Press [8], Article 2 of which asserts that the media has a role in conveying information to and educating communities; this also includes disaster risk communication. In a disaster, the media can be used to distribute disaster information, even as an Early Warning System (EWS). Ideally, this role can be carried out by the media either independently or in collaboration with other parties. Therefore, in the delivery of disaster information, it is important to ensure the media gives proportional attention to other topics as it carries out its role in fulfilling the public's right to know, as stated in Article 6 of Law No. 40/1999.

"The media has an important role in providing education and early warnings related to natural disasters by gathering information about the needs of victims of natural disasters for government organizations and volunteers and [by] being a potential channel for discussion and feedback from the community about natural disasters [9]".

The study conducted by Asteria (2016) [10] describes three important approaches that can be used in disaster journalism as follows:

- The impact and chronology of disasters, and also to educating the public about the occurrence of disasters and reporting the facts that could be related to mitigating the impact of future disasters.
- Must reflect the values of social humanism by revealing accurate data and facts, because the information conveyed also becomes material for social education and could impact victims and non-victims.
- Report and broadcast contents should not have potential for sensitive impact on victims or make victims discouraged by the reality experienced.
Furthermore, it was stated by Asteria (2016) [10] that the media under study had not provided detailed and clear knowledge about disasters, and could not provide effective early warning to citizens, and thus it needed to be improved with an emphasis on humanity to ensure that the mass media can support disaster preparedness and disaster education, thereby building the community's capacity to face future disasters.

2. Purpose
The purpose of this study is to determine the role/involvement of the media and analyze its existence and role in supporting disaster education and risk communication in Aceh following the 2004 Indian Ocean tsunami. It is expected that the results of this study will be used as a reference by the government and media in contributing and managing disaster risk information for disaster risk reduction efforts.

3. Methods
This research is qualitative research, exploring social phenomena or reality. The qualitative approach was used in this study to understand the roles and involvement of the media in Aceh after the 2004 Indian Ocean tsunami. Data were collected through semi-structured interviews, which used open questions to provide and develop on-going conversations. The open questions gave informants the freedom to answer questions as they want, because no answer choices are provided [11].

This research was conducted in Banda Aceh between April and May 2018. The resource of this study were media that represented the government (electronic) and private (print, online, electronic) media. The government media were the Televisi Republik Indonesia (TVRI) of Aceh and the Radio Republik Indonesia (RRI) of Aceh, while the private media included print media (Serambi Indonesia), television (Aceh TV and iNews), radio (Djati FM, and Serambi FM) and online media (Serambi Indonesia).

The research went through three major stages, namely:
- Preparation: the formulation of a list of questions used as an interview instrument, covering the information of programs/rubrics related to disasters, involved elements (such as persons who influenced disaster programs), funding support, and community responses to represented media.
- Data collection: Data collection was carried out using an interview and observation approach. Interviews were conducted by contacting informants. The interview results were written on the interview transcript sheet. Observations of resource media were used to see rubrics and programs and to review the news coverage of disaster issues.
- The analysis and report writing; all data were collected, discussed and analyzed based on intended purposes.

4. Results
Representatives from eight media were interviewed; one was from government media, while the rest were from private media. Research identified numerous examples of the media communicating risk to promote disaster awareness after the 2004 Indian Ocean tsunami. Surprisingly, a negative trend was found, in which media engagement in covering disasters and disaster risks decreased. The interview results showed that most of the media gave frequent coverage to disaster topics only during the recovery phase. Disaster programs were only limited to reporting mitigation and the reconstruction process. After the end of the BRR contract in Aceh, media engagement in communicating disaster risks also decreased. For instance, media such as Serambi FM, RRI, and Djati FM had special disaster programs, but these concluded mostly by the end of 2011. Therefore, from 2012 until 2018, these media focused mainly on reporting disaster events and response times.
However, each media involved in this research has media programs related to disasters. The media programs are described as follows:

| No | Media          | Types of Program                   | Advertisement                                      |
|----|----------------|------------------------------------|----------------------------------------------------|
| 1  | TVRI Aceh      | Aceh News                          | Interactive dialogue                               |
|    |                |                                    | PSA (Public Service Advertisements, per BPBA request) |
| 2  | RRI Aceh       | Pro 3 dan Pro 4                    | Interactive dialogue                               |
|    |                |                                    | Routine PSA, Weather Information                   |
| 3  | Serambi Indonesia | Serambi Indonesia Rubric           | Opinion and reporting                              |
|    |                |                                    | Citizen Reporter, *Droe keu droe, Column Culture*   |
| 4  | Serambi FM     | Salam Serambi                      | Talk show                                          |
|    |                |                                    | PSA in collaboration with BPBA                     |
| 5  | Serambi News   | News (Nanggroe)                    | Opinion and reporting                              |
|    |                |                                    | Citizen Reporter, *Droe keu droe, Column Culture*   |
| 6  | Djati FM       | Breakfast                          | Talk show                                          |
|    |                |                                    | Momentum/event, public dialogue, emergency radio    |
|    |                |                                    | training in providing information                  |
| 7  | TV Aceh        | Aceh Today, All about Aceh         | Morning Coffee, Parliamentary                      |
| 8  | iNews TV       | iNews Aceh                         | *Peunegah Aceh*                                   |

4.1. Disaster programs/funnels

First, both types of media have funnels for reporting disasters. Although the topic of disaster was recognized as a media concern, it also covered other types of information. This means that the media do not have specific programs related to disasters. All media have two of three funnels; only the government media and one private media (Serambi Indonesia) have an advertising funnel. This means that the media are popular among Acehnese. As a result, the Aceh Disaster Management Agency (Badan Penanggulangan Bencana Aceh, BPBA) has been interested in cooperating with these media.

The news funnel is mostly used for reporting up-to-date news. The information contained in this funnel also matches the needs of society, including—for example—economics, diplomacy, lifestyle, education, disaster, and so on. Most media do not have special rubrics for disasters or report disasters as regular news. Information is presented in various forms, which can be ascertained through direct coverage from the disaster sites, as proclaimed by news shows. For electronic media such as television and radio, interview programs are conducted directly by inviting interviewees to the studio, while print media present the news by drafting it first before publishing.

Second, tentative programs have been organized only by electronic and online media. Some programs, as mentioned above, drove this funnel. This included, for example, a live program inviting viewers/listeners to contribute directly in the form of questions and responses. However, this dialogue...
program also did not include regular disaster programming. Dialogue mainly focused on the trending topics of the week or month. Third, advertising: advertisements are used to inform society about disaster prevention and forecasts.

Materials and programs owned by electronic and printed media could be distinguished by their form of presentation. For example, RRI's electronic media conveyed disaster information that focused more on the response or emergency phase. One forms is PSA, which provides information related to disaster mitigation and awareness in different regions based on the risks in said regions. In this case, TVRI has a government-supported talk show and interactive dialogue program related to disaster issues.

Meanwhile, print media such as Serambi Indonesia often also provide opinion rubrics that give students, experts, and even community members the opportunity to spread and share their opinions about disaster. These opinions and articles are not included regularly, but incidentally, depending on the sources obtained by the authors.

4.2. Program Resources

In running disaster news and programs, all media are involved in the selection and interviewing of informants. Experts are commonly used as resource persons by the media and invited to speak on their disaster programs (e.g. Disaster Management Agency, Department of Social Affairs). The media have also involved legislature (to look at approved policies and budget allocations), academics, and representatives of the Centre for Disaster Studies and NGOs. The role of a communicator here is to provide disaster risk information in the form of data, study results, experiences, etc.

The public is more confident and interested in watching or listening to programs that have news or impressions sourced from disaster institutions. The media are also open to involving other competent parties in delivering disaster risk messages, such as local leaders who have local knowledge about dealing with disasters, such as the Simeuluean people who were saved from the 2004 Indian Ocean tsunami—only three of the island's 70,000 residents were reported killed.

However, the involvement of experts is not only the main choice, as the main focus of the media programs is to attract public attention and ensure public preparedness for future disasters. While the influences of experts in the interview process support the preparations handled by journalists, informants also come from local communities who experienced disaster. Representatives of vulnerable groups such as women and disabled groups could also be involved as resource persons. It is important to know the common problems that are faced by such vulnerable groups during disasters.

4.3. Factors Causing the Absence of Special Programs

The absence of special programs in the media was influenced by many factors, including the kinds and levels of community needs for disaster information, the availability of funding, and the level of creativity in presenting information.

4.3.1. The Kinds and Level of Community Needs on Disaster Information. In general, to ensure the effectiveness of disaster programs, the media should also be concerned about listeners/readers/viewers' point of view; that is, the media should know the kind and level of disaster information needed by audiences. Audiences' points of view provide the media with input for improving disaster programs, which could be a strong reason for providing special space or rubrics. Disaster programs could include:

- Interactive dialogue,
- Disaster rubric for readers’ opinion,
- Comment columns,
- Social media platform.

However, such special programs have not optimally sought listeners/readers/viewers contributions. This is also indicated by the fact that disaster risk information has not yet resulted in
community awareness for reducing risk, especially the information presented in the form of disaster education. Community interest in disaster increases significantly when disasters occur, both within or without Aceh. This situation may likely be caused by the media's inconsistent presentation of disaster events, which is more intensive during the emergency or response phase and continues through the rehabilitation and reconstruction process. Limited feedback from viewers/readers will undermine the media rating.

4.3.2. The Availability of Funding. In addition to the level of community needs for disaster information, funding availability is also a factor that influence the media's designing of special disaster programs. Based on interview results, it can be concluded that both government and private media have no special budget for regular disaster programs. In print media such as Serambi Indonesia, the presence of a special program was found to depend on the situation, such as the occurrence of disaster and the sponsorship of parties interested in developing a special program on disaster topics. This is due to operational costs that are not budgeted by media management. Programs with low ratings will not able to boost circulation, thereby affecting media income. This most prominently affects private media.

Government media, meanwhile, should not benefit financially. It has the responsibility to provide disaster risk information, and as such its budget must be allocated to support the planned programs. However, so far, the budget allocation for such programs is still very limited. This was conveyed by an informant from RRI, who stated that "there is no special budget to invite resource persons (in an interactive dialogue), but the speaker is present on a voluntary basis". This is similarly true at TVRI, which still runs disaster programs situationally.

4.3.3. Presentation-Packaging Information Creativity. In print and online media, which gain their power through presentation and writing, disaster information seems monotonous and old-fashioned, with a rigid and visually uninteresting writing style. It has been made less attractive to the broader public, especially youths.

In electronic media, the style of presentation is similarly not innovative. The selection of resource persons is mostly aimed at certain groups; because of the hosts' lack of knowledge, they are unable to dig deeper and make the information interesting. Coupled with the use of resource persons or experts who are not easily understood by ordinary persons—the main target of disaster information. Moreover, information in not presented by balancing the scientific and religious approach, and as such it has not been able to motivate the Acehnese community to change its attitudes and paradigms, which hold that disaster is destiny and as a result informs a more passive and fatalistic approach to it. Without a balanced approach, it is impossible to create a new paradigm where people can actively reduce disaster risks.

5. A Good Initiative

The Disaster Care Journalist Forum (Forum Jurnalis Peduli Bencana, FJPB) was established in Aceh as recognition of the media's need to be concerned with disaster risk information. This initiative was carried out by the members of this forum to provide disaster risk information to the public. The FJPB carries out the role of broadcasting disaster risk information related to:

- The ability to adapt to disaster
- The ability to save lives when disasters occurs
- The ability to take the role on disaster risk reduction efforts

For example, Djati FM Radio has worked together with other forum members to frequently conduct media preparedness training. This training targeted representatives of local communities, the RAPI (Indonesian Inter-Population Radio) community, students, and regional BPBD. This training was intended to inform communities and related stakeholders about the disaster risks surrounding them. Local radio broadcasters were also partners in disseminating disaster risk messages and helping communities to convey their problems to the government.
6. Conclusions
Based on the above findings, media engagement in supporting disaster risk reduction and communicating disaster risk in Aceh can be summarized as follows:

- All of the media in Aceh following the 2004 Indian Ocean tsunami have started programs related to disaster, but most depend on the level of leadership and media concern for disaster issues,
- Even though there is increased awareness of the essential role of the media in disseminating risk messages through community perceptions, it seems to focus only on when disasters occur,
- The lack of journalists’ capacity to present disaster programs is also a main issue,
- The allocation of funding is the media's main problem in running disaster programs.

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