Mass Media Framing on Disaster: Case Study Landfire in South Sumatera

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ABSTRACT

Indonesia is among the nations with the highest number of natural disasters. This syndrome is aggravated by unbalanced information provided by the media. The media use framing to enforce information distribution rules, particularly in regards to forest and land fire reporting. Using a constructivist research methodology, this study argues that framing is the key to influencing public opinion towards actors who might be perceived positively or negatively. The results showed that mass media framing was divided into several themes. This framing explains how the mass media has an important role in disseminating disaster-related information to the public. Some evidence suggests that political competition among the local political elite contributes to the occurrence of forest fires, it's also ensued in mass media in Indonesia. If the government is unable to enforce strong regulations on irresponsible parties, forest fires will persist. The mass media must exist as a tool to regulate its population so that they do not burn forests and land that is detrimental to the nation.

INTRODUCTION

In Indonesia, forest and land fires are prevalent during the dry season. The incidence of big wildfires rose in 2015 compared to the previous year. Kalimantan, Papua, and numerous islands in Sumatra, such as Jambi, South Sumatra, Riau, and Lampung, had the most severe land fires. South Sumatra had the most burnt area with 646,298 hectares, followed by Central Kalimantan with 583,833 ha, Papua with 350,005 ha, Riau with 183,858 ha, and Jambi with 115, 658 ha (Forest fires and land monitoring, 2016).

In 2019, a greater number of wildfires occurred than in the previous year. In 2019, there were more forest fires, particularly in the South Sumatra area. South Sumatra was ravaged by a total of 52,716 acres of forest fires. In 2019, South Sumatra's wildfire season

began in April. These wildfires are worsened by a lengthy dry season and the predominantly marshy terrain of South Sumatra. This increases the frequency of forest fires. In South Sumatra, the regions of Ogan Komering Ilir, Musi Banyuasin, and Ogan Ilir are prone to forest fires. The Ogan Ilir region frequently sees land fires each year, with 738 acres and 95 hotspots in 2019 (Karhutla monitoring, 2019).

The mass media is the fourth pillar that fulfills the control role of the government and the communication function of the people's desires (Hawkes, 2001). Each mass media uses a unique perspective while reporting on a topic, which allows them to focus the attention and views of its readers - the general public, stakeholders, and policymakers and law enforcers (McCombs & Valenzuela, 2020). Regarding the subject of forest and land fires, it is essential to examine how local and national media policies interpret the issue (Sadath and Rahman, 2016); Sidiq, 2019).

Sharing information and expertise concerning catastrophes and mitigation is crucial (Hoffmann & Muttarak, 2017), . After a disaster, it is necessary to provide an introduction to or knowledge on disasters in order to limit the damage (Ramadhan et al., 2019). In disaster management, a lack of communication and cooperation has an effect on rehabilitation and reconstruction. Very significant are disaster communication studies, particularly during emergency response, to expedite the reconstruction and rehabilitation processes (Elbanna et al., 2019). Therefore, a range of innovations are required in disaster mitigation efforts, particularly in terms of disseminating to the public the information required for disaster mitigation (Spialek & Houston, 2019).

Communication is sometimes viewed as a process in which communicators send signals to communicants in accordance with particular norms (Znikina et al., 2017). Certain rules govern both vocal and nonverbal signal words, communication is the study of how to develop efficient human connection communication in order to get information (Pearson et al., 2017). This study examines the communication utilized in the mass media to inform the public about landfire and forest mitigation.

Communication may be effective if both parties, the sender and receiver of the information, can comprehend one another. The public is the intended recipient, whereas the sender is the current mass media (Hameleers, 2018). This research focuses on the mass media that informs the news. In the contemporary digital era, communication through media is crucial for facilitating information transmission. Within the context of internet media, information pertaining to land fire prevention techniques is communicated. Community preparedness and early warning programs rely heavily on communication media as a support for disaster information systems (Perera et al., 2020).

Other study related to mass media and disaster had been conducted by researcher around the world. Research related mass media and diaster had been conducted by Wenger in 1985 show that mass media as a friend because its role as pre disaster public education, warning dissemination system, general information distribution and mobilization of outside assistance. Research by Scanlon in 2011 show that mass media on disaster resulting the myth which made people panic and a myth perpetuated by the media. Study by Quarantelli also indicated that local mass media in US Disaster preparedness planning among local mass media organizations is very limited and generally of poor quality. A case study of a flood in a rural community in Puerto Rico conducted by Perez-Lugo (2001) suggests that media is inefficient in explaining how disaster awareness is created and how this relates to effective disaster mitigation.

Previous study give their wide-reaching consequences, forest and land fires are a highly dangerous problem. And thus far, the problem of forest and land fires has been repeated

each year with remedies that have not yet addressed the problem's core cause. Consequently, it is essential to evaluate how much local and national media coverage forest and land fires receive and how much emphasis is placed on reporting.

METHODS

The constructionist method (paradigm) was used in this study. According to the constructionist paradigm, reality is something that is made and constructed (Kamal, 2019). In the news creation process, there are journalistic principles, moral and ethical decisions, and journalistic allegiances, therefore the news content does not reflect objective reality (Ward, 2019).

This study utilized secondary data consisting of news stories from local (sumsel.tribunnews.com and sumeks.co) and national (kompas.com and okezone.com) online media websites. These four mass media were selected due to their popularity in Indonesia and South Sumatera. Collecting news items on forest and land fires, then reading, examining, and analyzing them using Gerald M. Kosicki's framing analysis. The framing analysis paradigm of Gerald M. Kosicki in Setiawan and Nulhakim (2019) say about emphasizes four framing methods, namely syntactic, script, thematic, and rhetorical components.

The syntax examines how journalists organize comments, views, quotations, and observations about an event into a broad news structure. Second, the framework of the play examines how journalists report an incident as news. Thirdly, the thematic structure relates to how journalists translate their perspectives on an issue or occurrence into sentence propositions or inter-sentence links, which ultimately compose the entire text. Fourth, a rhetorical framework that illustrates how journalists highlight particular meanings in the minds of readers by their use of words, idioms, pictures, and images (Mutiara & Eriyanto, 2020).
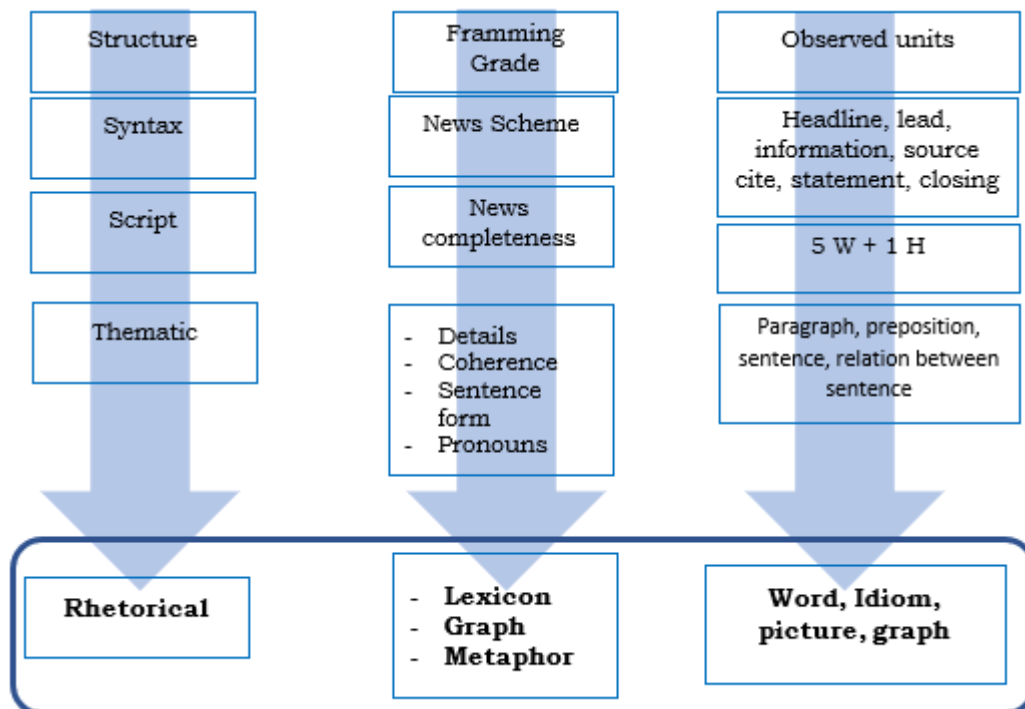

Figure 1. Framing Pan and Kosicki Framming Model
Source: (Sembel & Setiawan, 2022)

RESULT AND DISCUSSIONS

Land and Forest Fires in South Sumatra

According to data from the Ministry of Environment and Forestry, in South Sumatra there were land fires covering 646,298.80 hectares in 2015 and 336,770.00 ha in 2019 (see *Figure 1*). 2015 and 2019 are the years with the greatest burnt land area on the island of Sumatra over the five-year period from 2015 to 2020. This data also determine that South Sumatra has seen the second-highest total number of forest and land fires on the island of Sumatra over the past six years, and the third-highest number of forest and land fires in Indonesia over the past five years (Rijal et al., 2016).
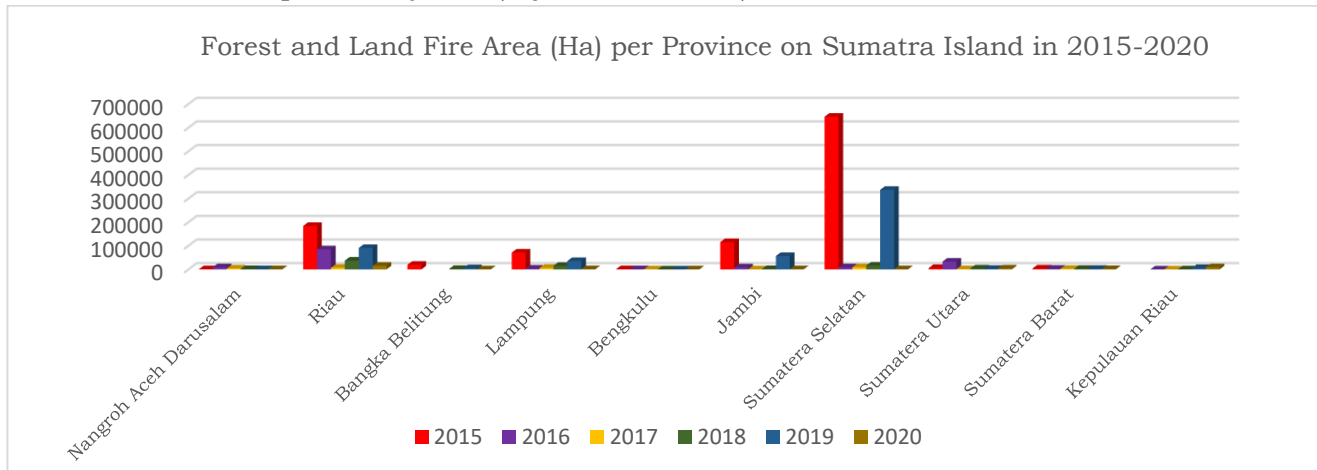

Figure 2. Forest and Land Fire Area (Ha) per Province on Sumatra Island in 2015-2020
Source: PKHL Directorate, Ministry of Environment and Forestry RI, 2020

Land and Forest Fires in South Sumatra

Tribun Sumsel were the most news organizations to report on the landfire disaster in south Sumatera in 2019, comprising around 30.69% (62 news) of all media outlets. With 61 news articles, or 30.2%, while Kompas was the most regularly reported landfire disaster in the national domain (*See Table 1*).

Table 1. Mass Media Themes Reporting related to Forest and Landfire in South Sumatera

No	Name of Mass Media	Mass Media Scope Classification	Themes News Classification									
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	Total	Percent (%)
1	Okezone	National	6	0	14	12	6	0	0	0	**38**	**18,81**
2	Kompas	National	13	0	0	33	2	0	13	0	**61**	**30,20**
3	Tribun Sumsel	Local	13	14	19	10	2	4	0	0	**62**	**30,69**
4	Sumeks	Local	14	20	0	0	4	0	2	1	**41**	**20,30**
	Total		46	34	33	55	14	4	15	1	**202**	**100**

Source: Author Analysis, 2021

Information:
(a) The occurrence of Forest and landfire
(b) Government Mitigation
(c) Government Effort and Policy to solve
(d) The Landfire impact
(e) Community effort to solve
(f) Spatial distribution
(g) Corporation mastermind
(h) NGO involvement

The results show that a lot of news reporting about the landfire impacts on society, the environment, and health (27.23 percent). The second report identified the occurrence of forest and landfires, which 46 news (22,7%) were able to obtain. The media also asked that the government be able to give regulations and measures to enhance the environment so as not to create forest fires (33 news) and attempts to reduce land fire disaster (34 news).

Zhongdang Pan and Gerald M. Kosicki Model Framing Analysis on Disaster Framming

According to the constructionist paradigm, news is not considered as objective and unbiased. From the moment of coverage through presentation, a news product cannot be divorced from the framing process. Fundamentally, news framing is an inescapable technique due to the necessity of simplifying the world's complicated reality so that it is relevant and readily comprehended by the audience. According to Robert N. Entman, framing is the act of selecting from diverse elements of reality such that some features of an event seem more apparent than others (Ningsih et al., 2019). Certain parts of reality are highlighted by selection, repetition, emphasis, and presentation.

The news framming was organized into eight themes by the media, there are: (a) The occurrence of Forest and landfire; (b) Government Mitigation; (c) Government Effort and Policy to solve; (d) The Landfire impact; (e) Community effort to solve; (f) Spatial distribution; (g) Corporation mastermind; and (h) NGO involvement.

Table 2. The occurrence of Forest and landfire

News Reported: Kompas Framming	
Syntax	Agus Wibowo, director of the National Disaster Management Agency's (BNPB) Center for Data, Information, and Public Relations, is the source of the quote contained in this article.
Script	BNPB (who), explained the state of emergency (what), July 23, 2019 (when), six provinces (where), poor rainfall exacerbated forest and land fires (why), the number of staff deployed and how to manage the situation (how).
Thematic	Kompas employs explanatory coherence to describe in detail how to deal with the six emergency provinces including forest and land fires. The backdrop provides information on the lack of precipitation that causes forest and land fires, while the cover contains information regarding the occurrence of forest and land fires throughout each dry season.
Rhetorical	A photograph of a little child attempting to extinguish a fire with a branch of a coconut tree was displayed to add drama. Images and photographs in the news provide an ideological and interpretative purpose as rhetorical components.

Source: Author Analysis, 2021

Kompas' report is similar to Page & Hooijer (2016) research in that peatlands can cause peat conditions to dry out, making them highly flammable. Apart from environmental biophysical factors, climatic conditions are also natural factors that trigger forest and land fires, such as prolonged (extreme) dry seasons. Research by Putra et al., (2008) in the Peatland Clearing Area (PLG) that after 11-14 days it experiences drought and if the water level in the peatland decreases to 20 cm below the surface of the peatland, surface fires peat can occur. These fires are getting more intense when the drought is not normal with the arrival of the El Nino-influenced dry season.

Figure 3. Pictures of Children Fighting Fires (left) & Extreme smog blankets Palembang city (Right)
Source: Kompas.com documentation 23 July 2019

Table 3. Government Mitigation

News Reported: Okezone Framming	
Syntax	In the headline portion of the thirteenth news report, for instance, it is stated "Gardener Accidentally Burns Land, Four Men Arrested" In framing an incident, headlines play a significant role.
Script	on the who element, in this theme journalists portray the government (Ministry of Environment and Forestry [KLHK]) and the police as parties who are trying their best to overcome forest and land fires.
Thematic	Journalists utilize a variety of coherence factors, including as addition coherence, contrast coherence, and explanatory coherence. In this topic, the seventh, eleventh, twelfth, sixteenth, and thirty-fourth stories employ coherence to link extra information that is unrelated to the material delivered.
Rhetorical	In this topic, one of the realities that journalists wish to establish regarding the government's efforts to combat forest and land fires is a strong image. Another reality that journalists want to create is laboriousness. In this instance, journalists wish to demonstrate that the government's efforts to combat forest and grass fires are ideal and exhaustive. Not only from the perspective of the KLHK, but also that of Commission IV of the DPR. In the third paragraph of the 38th news story, the journalist opines that Commission IV of the DPR has investigated a variety of impediments and difficulties experienced by the Karhutla Task Force in the field.

Source: Author Analysis, 2021

Okezone reporting same like Roskusumah's research (2013), that explains the importance of beetwen mass media communication and the government in Yogyakarta where the Geological Agency of the Ministry of Energy and Mineral Resources establishes communication with local communities around Mount Merapi to trust the information provided in two ways, there are structured and the media. Furthermore, Fahriyani et al. (2020) also highlighted the use of social media Twitter for disaster mitigation communications in Indonesia. Several cases on the island of Kalimantan also mention the importance of mass media such as Dwivayani & Karim's research (2020) which considers the use of radio as a medium for environmental communication and effective flood disaster mitigation in the city of Samarinda.

Table 4. Government Effort and Policy to Solve

News Reported: Sumeks Framming	
Syntax	From headlines to news leads, Sumeks media tends to highlight positive things from the government's perspective in dealing with forest and land fires. In the news entitled "Minimizing Fire, Every Village in OKI is Escorted by Balakar"
Script	South Sumatra Governor, OKI Mayor, OKI Regional Secretary, Camat, Provincial Secretary, and other government sources.
Thematic	There is also a form of sentence that emphasizes the government's efforts in dealing with forest and land fires to complement the themes published in the news. An example of the use of the sentence form is as in the news entitled "Land Task Force Continues to Make Efforts to Prevent Forest and Land Fires in the South Sumatra Region",
Rhetorical	Sumeks use a vocabulary that appears secure and emphasizes the government's good efforts to combat forest and land fires. For instance, Sumeks employs the terms "successful," "firmly," "tough," "prima," and "ready." Based on the usage of these terms in the news articles published by Sumeks, it appears that Sumeks want to convey to news readers that the government has made numerous measures to combat forest and land fires and is carrying out its responsibilities forcefully.

Source: Author Analysis, 2021

Sumeks report also in line with Budiningsih (2017) research that coordination between government agencies occurs in the context of fire fighting. The resulting performance is less than optimal in terms of the achievement of the blackout target. Factors that influence coordination are authority, communication, control and leadership. She also mention that coordination needs to be improved in the context of preventing forest and land fires considering that extinguishing fires on peatlands is relatively difficult to control. Research by Novert (2015) show that Padang City government efforts to improve community preparedness as part of disaster risk reduction efforts the quake and the tsunami.

Table 5. The Land fire Impact

News Reported: Okezone Framming	
Syntax	Journalists published the headline "Palembang is surrounded by smog; visibility is just 700 meters." Journalists use the term siege to describe the haze that enveloped the city of Palembang due to forest and field fires.
Script	Palembang residents (who), Palembang city (where)
Thematic	Journalists utilize coherence, or consistent focus. In the opening paragraph, journalists describe how the pollution in South Sumatra is a consequence of forest and land fires. Journalists also cited information from the South Sumatra Health Service indicating that Palembang's air quality remained in the moderate level. However, in the second paragraph, the journalist reported that a child died of an Acute Respiratory Infection (ARI). The hospital has not established medically the reason of the infant's death. However, by employing the even emphasis coherence element, it is as though the infant perished in the pollution.
Rhetorical	On the topic of the impact of forest and land fires, researchers identified a number of journalistic language trends. There are heavy phrases, a drooping limp, the wretched infant, and apprehensive among them. As is well known, the Karhutla tragedy has resulted in the presence of smog, which causes a variety of respiratory ailments, decreased vision, and a decrease in resident activity. The above vocabulary generates a dramatic impact that should not be utilized in a news narrative whose purpose is to describe actual occurrences and not to promote fear and terror among residents.

Source: Author Analysis, 2021

Land and forest fire disasters have negative impacts, one of which is respiratory problems. This report still in line with Wikananda (2020) and Fitri et al. (2022) research's which saw a

positive relationship between forest fires and an increase in the number of respiratory diseases especially impacting on baby (see okezone.news report picture).

Figure 4. A new born baby supposedly dies due to pollution (left) & Smog in Palembang (right).

Source: okezone.news (15 September 2019)

Table 6. Community effort to solve

Example News Reported: Tribun Sumsel Framming	
Syntax	Headline "Update Hotspot Data August 1, 2019 at 06.00 WIB: Most in Musi Banyuasin", journalists emphasized the information that the Musi Banyuasin area has the most hotspots, thus causing greater attention to the audience in Musi Banyuasin.
Script	rubber farmers, BPBD, TNI (who), PALI, South Sumatera (where)
Thematic	The coherence of this emphasis is found in the news reporting on the efforts of rubber farmers to prevent their plantations from being burned by building barriers and sleeping in the gardens.
Rhetorical	The word "even" has the effect of emphasizing the efforts of these farmers and describing forest and land fires in the PALI area cannot be underestimated. Not only the farmers, but also the BPBD anti-karhutla task force team, the TNI and the National Police who participated in helping to extinguish the fire. Furthermore, in the 9th paragraph of the same story, the reporter described the team's hard work by successfully extinguishing the fire

Source: Author Analysis, 2021

Table 7. Spatial Distribution

Example News Reported: Okezone Framming	
Syntax	headline "675 Hotspots Spread in South Sumatra, Palembang's Air is the Most Dangerous in Indonesia".
Script	Meteorology, Climatology and Geophysics Agency (BMKG) (who)
Thematic	Based on the particulate matter number 10 (PM 10) provided by the Meteorology, Climatology and Geophysics Agency (BMKG), which is 632.06 ugrams per cubic meter, journalists assert that the air quality in Palembang City is the most hazardous in Indonesia. The data does not provide circumstances in other locations of Indonesia, thus it cannot support the claim that Palembang has the most hazardous air quality.
Rhetorical	The visual element employed by journalists is italicized in the subheading and helps to clarify in a limited manner the role of modern agriculture in avoiding land fires, as directed by President Joko Widodo during the Land and Forest Fire Coordination Meeting. In contrast, the visual elements employed in the 28th and 36th reports are quote marks, denoting the strong phrases and the text on the protest banners.

Source: Author Analysis, 2021

Tribun Sumsel made sixs news stories on the theme of Community Efforts and the Development of Karhutla, which predominantly used headline and coherence elements.Tribun Sumsel news highlited community concerning in disaster management.

This report also similar with research conducted by Muttaqin (2015); Rahman & Yuliani (2018) that the community's role in protecting forests and community empowerment are significant effort part of disaster mitigation management in Indonesia. Fatkhullah et al. (2021) research's mention contributing community by reintegrating the Fire Care Community group, implementing karhutla disaster mitigation training, as well as procuring facilities and infrastructure in the form of fire extinguishers and reservoirs.

Okezone report related to Datmika (2020) research's in Kotawaringin that geographic information systems (GIS) make it easier to help mitigate fire disasters. Febriana (2016) in Sleman Regency also show that the importance of mapping the potential for forest and land fires as a preventive measure in disaster mitigation, so as to reduce the impact.

Table 8. Corporation Mastermind

Example News Reported: Kompas Framming	
Syntax	South Sumatran Police have formally detained Alfaro Gaddafi, the operational director of PT Hutan Bumi Lestari (HBL), according to Kompas. The second phrase then clarifies the assessment of PT HBL's position as a suspect.
Script	The components of why and coherence of reasons (thematic elements) – why PT BHL was called a suspect and its head seized – were illustrated on the first page of the news by using South Sumatra Police information.
Thematic	In the September 23, 2019, Kompas article headlined "Detained by the Police because the Land is on Fire, the Director of PT HBL Speaks Out," the company's leadership clarified the identity of the suspect. However, despite the fact that some of these news articles cite corporations accused of adopting the cover bothside approach, the amount of information provided is limited.
Rhetorical	Kompas wants to use the term "negligent" to describe unintended corporate engagement. In the 21 September 2019 edition of the news, Kompas reportedly indicated an element of purpose using the phrase "supposedly burning the land"; in prior stories, Kompas used the term "negligent."

Source: Author Analysis, 2021

Kompas framming similar to some research like Utami & Primawardani's research in 2021 that the factor causing forest fires are a lot of companies operate without environmental permits and overlapping of applicable regulations regarding business use rights and forest areas. Cabucci & Maulina (2021) research's demonstrates that the two media focused heavily on the company and were not objective about the fire incident at PT.Agro Sinergi Nusantara without considering the facts and realities, and did not include sources from the company that actually occurred in the field. As a result, it forms a social construction that leads readers to consider PT.Agro Synergy Nusantara as the primary object of landfire disaster.

Table 9. NGO Involvement

Example News Reported: Kompas Framming	
Syntax	Helping Residents, the ACT Provides Health Services. In the news, the contribution of ACT (Action Rapid Response) South Sumatra to the provision of health care in South Sumatra's hotspot regions is discussed.
Script	The sources of the quotations in this article are ACT employees who explain the health care program and people who feel assisted by ACT's health services.
Thematic	In addition, ACT asks the entire community to contribute in giving food and supplies to those afflicted by the smoke. Donations may be made in the form of cash or commodities, such rice, sugar, bottled milk, N95 masks, and others.
Rhetorical	This section of background material describes ACT and what ACT undertakes to combat forest and land fires. The background of this information is additionally supplemented by a rhetorical element in the form of news photographs.

Source: Author Analysis, 2021

Putra et al., (2019); Tabenu, (2019) reserach's focusing on institutional

challenges in forest and land fire control especially contributing non govermental organization (NGOs) to support government helping people who had negative impact due to land fire disaster. Hidayat et al., (2020) research's in Jakarta show that non-governmental organizations (NGOs) had been best actors who contribute to the process on flood disaster management in Jakarta.

Figure 5. ACT Health Service Post

Source: author

CONCLUSION

Users of online news portals, which continue to develop and may now be considered the primary source of information for the vast majority of people, demand that the media play a more active role in framing the news they post. The manner in which this news is presented will have a significant impact on the community's shaping of opinion.

The news frame that received the greatest attention from the media was the significance of the local and national governments in addressing the issue of forest and land fires. How the performance of the government and the good aspects of the government in dealing with forest and land fires have become newsworthy topics. In addition, firms engaged in forest and land fire events were emphasized, however their coverage was deemed disproportionate compared to government-related news.

News framing can lead viewers to particular conclusions on an issue or problem. Journalists should be able to use an environmental journalism approach to their news frameworks so that the public, government, and companies see the urgent need to safeguard the planet from forest and land fires and other environmental hazards as a shared duty. For further study, media ethnography research can indicate how the newsroom's gatekeeping mechanism impacts the framing of an issue in news products.

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