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Social Dynamics and Media Framing in the Development of Baturaden Power Plant in Purwokerto, Indonesia

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ABSTRACT

Adhering to the Paris Agreement (COP 21 UNFCCC), Indonesia has a strong commitment to reduce greenhouse gasses by 29% in 2030 and develop renewable energy. The government of Indonesia aims at 23% contribution from renewable energy to the national energy mix, as stipulated in the National Energy Policy, and geothermal energy is one of the key points to achieve the target. This study looks at the social dynamics between the government, the developer, and the local community in the development of Baturaden Power Plant as a case study, and how the issues are framed in the media. A media content analysis and a study of related documents on the project were conducted to examine the conflict chronologically and identify at which point the social tension started. The study suggests that such methods can be helpful in the initial stage of investigating social, economic, cultural, and political issues which arise in the development of geothermal power plants.

1. INTRODUCTION

Located alongside the Ring of Fire, Indonesia is blessed with enormous geothermal potential throughout the country of up to 25.3 GW, according to Indonesian Geological Agency (2019). In particular, the Java-Bali electricity system has huge electricity demand due to the large population in the two regions. The total installed capacity in the Java-Bali system has reached 38.8 GW (PLN, 2018), but most of this comes from thermal power plants. Renewable energy (RE) contributes only 10.18%, the majority of which is from hydro (6.94%) and geothermal (3.15%). In order to achieve the 23% RE contribution target, the geothermal development must be fostered in Java Island.

Situated in Central Java Province, Baturaden prospect area is located near Mount Slamet, an active volcano which is also one of the favourite hiking spots in Indonesia. The area was initially surveyed by the government. In 1997, a temperature gradient hole was drilled at 232m of depth by the Directorate of Volcanology, and this revealed a temperature gradient of 10-14^{o}C/100m (above the normal gradient temperature which is 3^{o}C/100m). The survey was continued by PT Trinergy (which later became PT Sejahtera Alam Energy (SAE)) in 2008. Then, the area was set as a Geothermal Working Area (GWA) by the Ministry of Energy and Mineral Resources (MEMR) in April 2010. The GWA was tendered and aimed at 220 MW installed capacity, and this was won by PT SAE. Since then, more detailed geoscience surveys had been conducted. In 2015, Geothermex reviewed and estimated that the area has 130-258 MW geothermal potential.

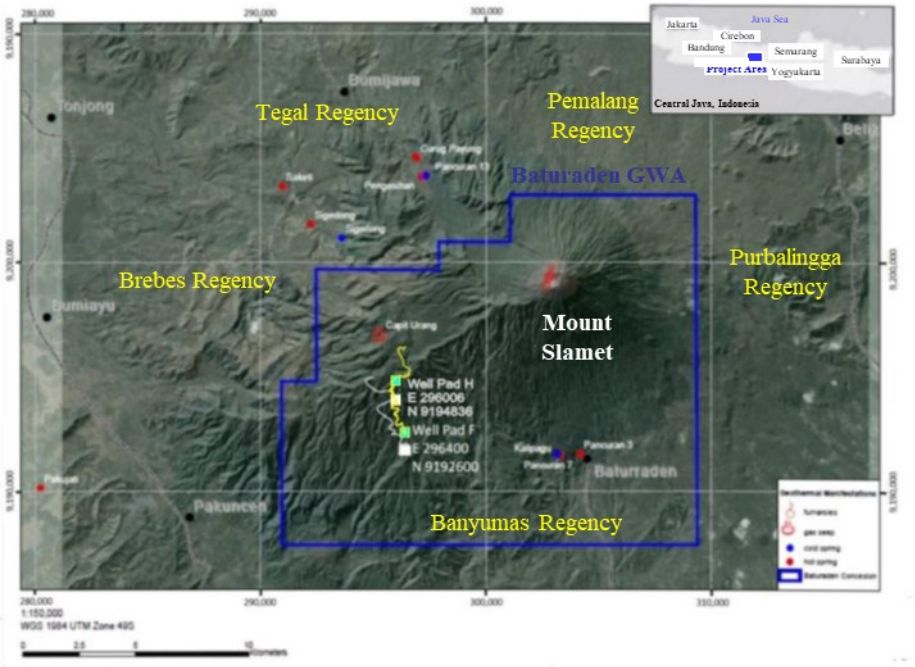

Figure 1: Baturaden Geothermal Working Area (PT SAE, 2017)

The infrastructure establishment and exploration drilling were delayed since the issuance of Borrow-to-Use Forestry Permit (*Izin Pinjam Pakai Kawasan* Hutan/IPPKH) and Surface Water Utilization Permit (*Surat Izin Pengambilan Air* Permukaan/SIPAP) took a long time. Later in late 2016, the progress was hindered again due to a landslide. The landslide caused the turbidity of river water, affecting the local communities who live nearby Mount Slamet. The local communities suspected that the geothermal project caused the landslide and has given bad impacts on the surrounding communities and environment.

In order to minimize the impact and help the residents, PT SAE provided clean water facilities for the affected villages. The company also built several weather stations to estimate the landslide hazard areas and monitor the river water. In late 2017, the first exploration drilling was conducted. Until now, three exploration drillings have been completed. Nevertheless, although the exploration process has been continued, the progress was hampered, partly due to social resistance during land clearing and drilling process. Protests from the local people have been around against the continuation of the project. According to the media newswire, their concerns were communicated through a number of ways, such as rioting acts, and are still voiced out even though the project carries on. This implies that the social conflict revolving around the development of the power plant has, in fact, not been resolved, at least on the part of the community.

This study looks at the social dynamics between the government, the developer, and the local community in the development of Baturaden Power Plant as a case study. Undeniably, examining social dynamics takes a comprehensive look at the problems, but as a pilot project, this study does not intend to make the investigation overly exhaustive. As obtaining primary sources of data will take some time, gathering initial insights from secondary sources can be beneficial. A media content analysis and a study of related documents on the project were conducted to examine the conflict chronologically and identify at which point the social tension started. The results of this study are expected to inform governmental and corporate bodies about appropriate measures to be taken when dealing with similar social situations in future projects.

2. RESEARCH DESIGN AND METHODS

While the nature of the study is exploratory, the approach of this research study is largely qualitative. The main sources of information are secondary data, namely official documents about the Baturaden geothermal project and news reports circulated online. As a qualitative research method, document analysis affords specific roles in, for example, providing background information and historical insight, following the course of changes and development, and corroborating with other findings (Bowen, 2009). The documents reviewed in this study were obtained from MEMR's archives, and an in-depth look was taken at any events involving communication with the public and/or the local people around the site of the project, such as public engagement sessions.

To cross-examine the results of the document analysis, online news reports were gathered by using the initial key words "PLTP Baturaden" on the Google search engine and suggested links to other relevant news stories. The sampling technique used is purposive as the study selected all relevant articles from key media (Newbold et al., 2002 in Macnamara, 2005), which in this study refer to broadcasting companies and institutions and overlooked news accounts written on individual blogs. The analysis of the media content focused on the subject of messages but also considered frequency reference to particular topics (Korochensky, 2003 in Fedorov, 2015). The coding was done manually, sorting each news story into pre-determined categories pertaining to the choice of frames, the tones (neutral, positive, or negative) toward the geothermal project, and the sources quoted. The categories for frames stem from news media coverage in crisis communication (An & Gower, 2009; Semetko & Valkenburg, 2000), namely: 1) human interest frame, which presents an emotional angle; 2) conflict frame, which emphasizes disagreement between individuals or organizations; 3) morality frame, which discusses an issue with regards to religious or moral considerations; 4) economic frame, which focuses on economic consequences; and, 5) responsibility frame, which attributes a problem to the government, an individual, or a group. The news stories were also analysed semantically to identify the media's tones (Habel, Liddon, & Stryker, 2009) toward the project. Lastly, the sources quoted were classified into the government (MEMR), the company, an opposing group, another supporting group, or a neutral group.

3. FINDINGS AND DISCUSSION

This section presents the results of the analysis of official documents and news stories, followed by a brief discussion after corroborating both groups of results.

3.1 Analysis of Official Documents

The following lays out chronologically the timeline of Baturaden power plant development as compiled from the information in the currently available official documents about the project.

Date	Project Description
February 2008	MEMR gave a preliminary survey assignment to PT Trinergy in Batruraden prospect area.
April 2010	Based on the preliminary survey results by PT Trinergy, MEMR set Baturaden prospect area as Geothermal Working Area (GWA) with 24,660 hectares width and 175 MW probable reserves.
September – December 2010	Baturaden GWA tender was conducted. PT Trinergy-Ormat International Inc. won the tender with a tariff of 9.47 cUSD/kWh. Subsequently, they changed their name into PT Sejahtera Alam Energy (PT SAE).
April 2011	PT SAE received Geothermal Mining Consent from Central Java Governor. Exploration activities started. Initial activities: the establishment of basic infrastructure, information dissemination to local governments, application of Power Purchase Agreement (PPA) to State-owned Electricity Company (*Perusahaan Listrik* Negara/PLN), and local government recommendations.
October 2011	PPA was signed with a tariff of 9.47 cUSD/kWh, the development plan of 2x110 MW, and operation duration of 30 years.

Date	Project Description
November 2011	PT SAE reported that they were conducting IPPKH application, Environmental Management Efforts (*Upaya Pengelolaan* Lingkungan/UKL) and Environmental Monitoring Efforts (*Upaya Pemantauan Lingkungan*/UPL) presentation to local universities and local governments, and topography mapping for conducting exploration drilling.
August 2012	The IPPKH was issued by the Ministry of Forestry for 44 hectares. The topography mapping was finished, and the preparation for exploration drilling began.
March 2014	PT SAE reported that they couldn't conduct the exploration drilling due to these reasons: • Although IPPKH was issued in August 2012, there are land acquisition problems with the national forestry company (Perhutani) and the national tea plantation company (PTPN); • PPA with PLN was renegotiated. PT SAE asked PLN to build the transmission line and asked for an extension from the PPA's effective date as the project has been delayed.
September 2014	The new Law 21/2014 about Geothermal was issued, and Law 27/2003 was revoked.
November 2015	As stipulated in Law 21/2014, geothermal is not considered as a mining activity anymore. Thus, the Geothermal Mining Consent (*Izin Usaha* Pertambangan/IUP) was revoked and MEMR granted a Geothermal Consent (*Izin Panas* Bumi/IPB).
October 2016	• As the exploration phase was extended, the second IPPKH was issued by the Investment Coordinating Board (*Badan Koordinasi Penaman* Modal/BKPM) for 488.28 hectares. • PT SAE got surface water utilization permit from the local government, particularly the Department of Water Resources Management. • PT SAE reported that land acquisition problems were almost solved. The establishment of infrastructure and preparation of exploration drilling were continued. • PPA renegotiation was solved.
21 October 2016	Landslide happened due to open-path working.
10 November 2016	Local communities complained to PT SAE about the turbidity of Prukut river water. The murky river water was still used in several villages in Banyumas Regency.
12 November 2016	PT SAE applied Stop Working Authority to open-path working, land-clearing, and cut-and-fill activities.
21 November 2016	PT SAE conducted an information session to the local government (Banyumas Regency) and local communities. PT SAE stated that they would conduct mitigation actions (building settling ponds on Prukut river, establishing spring water line to local communities, and setting plastic sheets on open-path land-surfaces).
28 November 2016	PT SAE and their contractors monitored that Prukut river water had returned to its normal condition.
4 December 2016	PT SAE allowed their contractors to continue the open-path, land clearing, and cut-and-fill workings. Along with civil works, landslide prevention works were also conducted.
9 January 2017	Another landslide happened due to highly-intense rainfall. Prukut river became murky again, and local communities launched another series of protests.
January 2017	Central Java Government gave a warning to PT SAE related to the landslide and turbidity of river water. The construction and exploration activities were stopped.
February 2017	PT SAE reported their mitigation actions following the landslide and other environmental issues which happened. At that time, Prukut river water was still turbid.
April 2017	Central Java Government allowed PT SAE to continue their civil works.
December 2017	Information session on drilling activities was held in Banyumas Regency.
December 2017 – September 2018	Drilling campaigns (3 exploration wells) were conducted.

Table 1: Timeline of Baturaden power plant development

As seen from Table 1, Baturaden power plant project development dates back to the year 2008, and PT SAE (which was then PT Trinergy) has been involved since the beginning. In addition to the company as the project developer, Baturaden power plant project has involved a number of stakeholders, including MEMR, PLN, the government of Central Java, the Ministry of Environment and Forestry, the Ministry of Public Works and Public Housing, Investment Coordinating Board (BKPM), and the regional Department of Water Resources Management, as well as the national forestry company (Perhutani), the national tea plantation company (PTPN), and local governmental bodies, universities, and communities. Over several years (2012-2018), civil works were conducted, but these were getting more massive starting from 2016. Beyond the above timeline (September 2018 onwards), the project has been in progress up to now.

3.2 Content Analysis of Online News Stories on the Baturaden Geothermal Project

Excluding articles which contain exactly the same news stories due to the practices of syndication, the Web searches produced a sample of 32 different articles written in Indonesian and published online. These stories were reported by 1) national mainstream news media, including RRI, Antara News, Berita Satu, Media Indonesia, Detikcom, BBC Indonesia, CNN Indonesia, Gatra, Liputan 6, merdeka.com, Detik Finance, SwaMedium, Kontan, Suara.com, Lensa Indonesia, and Portal Investor Daily; 2) regional news

portals, such as Purwokerto Kita, Suara Merdeka Cyber News, and Semarangpedia.com; 3) alternative media, for example, KBR, Mongabay, Batas.id, Selasar, Indoprogress, Persma, Pewarta Nusantara, and Kampusnesia; and, 4) governmental and institutional websites, namely Universitas Jenderal Soedirman (Unsoed)'s, Melung village's, and MEMR's official sites. Figure 1 below shows that national mainstream news media cover most of the stories, followed by alternative media. Meanwhile, regional news portals and governmental and institutional websites are trailing behind with almost the same number of stories.

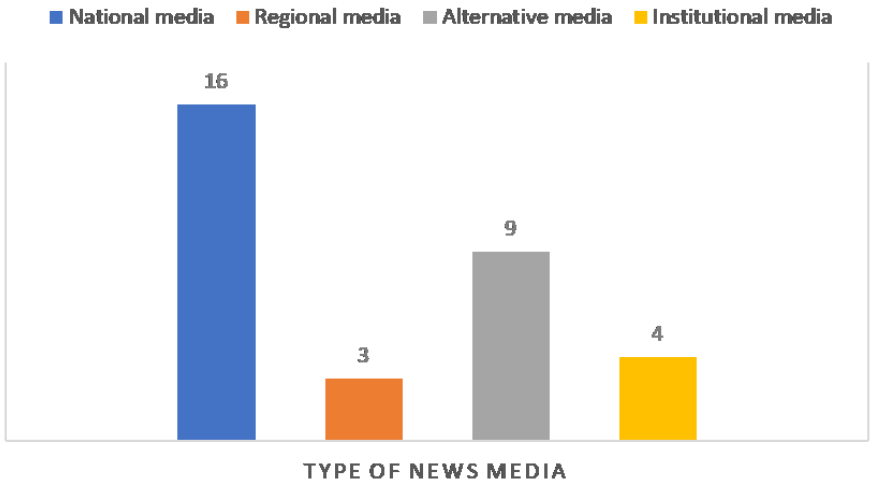

Figure 2: Distribution of news stories based on the media type

The time span ranges between as early as September 8, 2012, and December 10, 2018. Specifically, the earliest news story included in this study was the only one published in 2012. No other news stories were published between 2013 and 2016. However, the topic of Baturaden geothermal project surfaced again in 2017, with the most frequent hits in October (7 stories) and December (6 stories), followed by April, June, July, September, and November with 2 stories each and 1 story in August. As for 2018, fewer articles were found, and these were published in January (3 stories), as well as June, August, October, and December with 1 story, respectively.

With regards to content, the overall tone of the corpus in this study is mostly critical of Baturaden geothermal project. Breaking this down, 16 stories display negative attitudes, 9 other stories take a neutral or two-sided stance, and only the remaining 7 articles show positive tones. With the help of manual colour codes on the types of media and tones revealed, a pattern about these two variables was found. Negative and neutral stories about the project were covered by all the four types of media mentioned before, including alternative and regional media, as well as institution websites, e.g. Unsoed's site covering a two-sided story and Melung village's site presenting a story with a negative attitude. Meanwhile, positive stories were reported by MEMR's official site and five national mainstream news media. Moreover, a closer look at negative and neutral stories pointed to the fact that 7 out of 9 alternative media covered the undesirable sides of the project, rather than staying neutral, and this figure is on par with the number of national mainstream media reporting similar stories. These findings correspond with the statement from John Downing (in Cissel, 2012) that "alternative media often aim to challenge existing powers, to represent marginalized groups and to foster horizontal linkages among communities of interest" (p. 70). In addition, three of the alternative media stories are written in first-person voices and almost resemble opinion pieces, but these are included, considering that the news outlets are not individual sites.

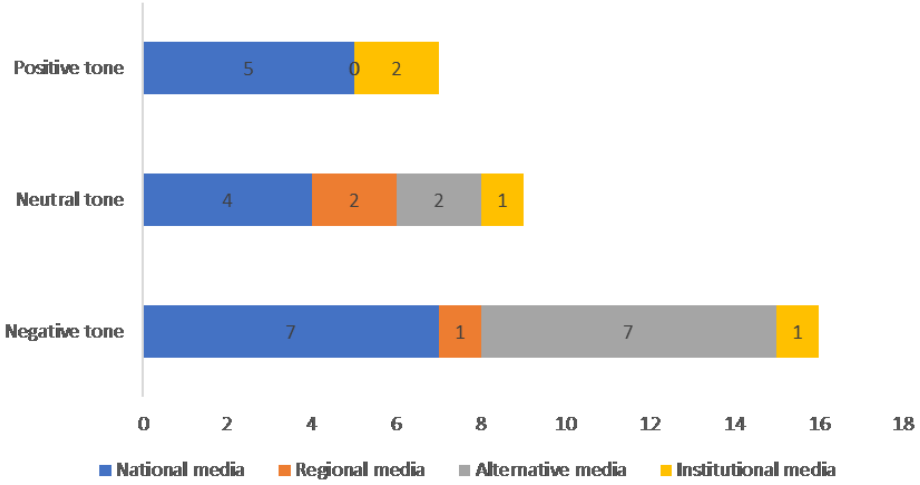

Figure 3: Distribution of news stories based on tone and media type

To differentiate the arguing parties and understand the subject-matter of the disputes, it is important to pay attention to the sources quoted, the frames used, and the stories themselves. In the negative news stories, those opposing the geothermal project consist of four different groups. First, the residents living nearby the location of the project are represented by the neighbourhood head of Melung Village, the head of Panembangan Village, the head of Kalisari Village, a farmer from Karangtengah Village, a citizen from Cilongok-Banyumas, and a university student from Cilongok. The second group involves local activists, including an activist from "*Aliansi Selamatkan Slamet*" (Save Slamet Alliance), the coordinator of "*Aksi Selamatkan Slamet*" (Save Slamet Movement), an activist from "*Cilongok Peduli Slamet*" (Cilongok Cares for Slamet), the Secretary General of "*Aliansi Gerakan Reforma Agraria"* (the Alliance of Agrarian Reform Movements), the coordinator of "*Aliansi Petani Indonesia*" (Indonesian Farmers Alliance) for Central Java region, the general coordinator of "*Paguyuban Giri Rahayu*" (Giri Rahayu community), the coordinator of Penginyongan News Community, and a researcher from "*Lingkar Kajian Banyumas*" (Banyumas research community). Thirdly, a governmental institution, the Department of Environment and Forestry of Central Java Province (*Dinas LHK*), represented by its Head, also showed disapproval.

Negative news stories are mostly framed around attribution of responsibility, mainly to the company (PT SAE). According to the framing questions in Semetko and Valkenburg (2000), a responsibility frame is signalled if a story suggests that the government, an individual, or a group is accountable for an issue and/or has the ability to alleviate the problem. The articles report complaints and concerns from denizens over the environmental setbacks of the project, such as crop failure, flood, lower quality of drinking water, heavy metals flowing to the river, the substantial amount of air and water needed, polluted air, soil erosion, possible demolition of sources of springs and non-forest products, forest destructions, and fear of drought hazard and landslides. These problems were said to have affected Pekalongan, Pemalang, Purbalingga, Tegal, Brebes, Cilacap, and Banyumas District. One salient issue is the polluted river, as described by the upstream of the Prukut River in Panembangan Village, Cilongok, which had changed its colour to brownish red and water content which had been mixed with oil, soil, and other exploration materials. These are supported by the results of an investigation into the river and a lab experiment, as well as data about lost water sources. Human interest frame, which is characterized by human examples and/or how individuals are affected by a problem, (Semetko & Valkenburg, 2000), is also employed frequently. Residents were reported to be experiencing a crisis of clean water, and this had adverse effects on consumption, doing the washing, and other needs, for example, the economic business needs of agriculture, fish farming, and tofu production. This said the murky waters were affecting local farmers and breeders. Denizens also spotted wild boar pests and some other fauna in their neighbourhood.

With the above issues, the local communities had been resistant to the project. Some of them displayed rejection by installing physical banners, murals, and photos on the edges of the road in Purwokerto and posting campaign materials on social media. A larger collective who named themselves the Save Slamet Alliance (26 mass organizations of workers, farmers, women, migrant workers, youth, and students) held a mass action of taking a bath and washing clothes in Prukut River, which was murky, presumably because of the project. Additionally, the Department of Environment and Forestry of Central Java Province sent an official protest to PT SAE. Other than protesting, the local communities also carried out campaigns to educate the inhabitants around Mount Slamet slopes and to give alternative knowledge, which they claimed to have previously been kept by the project developer. Their accounts point out to limited transparency from the company in informing the residents in Cilongok and the surrounding areas about the project, especially regarding the conceivable dangers. The lack of information and educational sessions about the project had led to more confusion among the residents. For example, a news article reports that some denizens had no idea that the project was ongoing, while some others were told that a toll road between Banyumas and Semarang, instead of a geothermal power plant, was being built in the area of Mount Slamet.

While not directly contradictory to the project, three stories cover violence cases experienced by protestors on October 9-10, 2017. Quoting from a journalist from the newspaper *Suara Merdeka* and the Head of "*Aliansi Jurnalis Independen*" (Independent Journalists Alliance) in Purwokerto, the articles describe how the rejection actions against the project went tense and concluded abruptly. Police officers and public order enforcers were reported to act violently toward as many as 28 demonstrators and some journalists. It is interesting to note that a human-interest frame is central in these stories, with descriptions and choice of words displaying rages, such as beating, camera-grabbing, repressive acts, persecution, and arrest.

In a wider context, that finding indicates the notion of greater power relations. Two other stories mention the concept of new imperialism, attributing the problem to the government who is seen to be siding with giant corporations and foreign investors through violations of laws which make it easy for investment in geothermal projects. On the other hand, the stories assert that the denizens are sacrificed as they will not benefit from the exploitation of natural resources. Back in 2012, Melung village's official site released a human-interest story suggesting helplessness of the residents. The source quoted, an individual representative of the village, labelled the residents as the rabble who could do nothing once the government grants approval for a project and who could only obey the policies, despite protests.

A conception of being powerless was also revealed by the regional government of Banyumas Regency. Represented by the Economic and Development Assistant of the Regional Secretariat, the Regent of Banyumas is testified to have demanded the project developer to provide long-term solutions to the reported environmental problems, noting that the company had divided attention and had not put in thoroughgoing efforts. Therefore, when a group of protestors were gathering and demanding to meet the Regent, he was said to be unavailable as he was meeting the governor of Central Java in Semarang to discuss denizens' complaints about the geothermal project development. This suggests that higher authority regarding the project is held by the Central Java governor, instead of the Regent of Banyumas.

In short, the negative attitudes identified in those news stories maintain that the project does not bring positive impacts on the commonwealth of the residents around Mount Slamet slopes but, rather, environmental damages. However, two out of the 16 negative stories use a conflict frame, and this means that other sides of the issue are included. Specifically, one story quotes the Director of Geothermal of MEMR, who suggested short-term and long-term solutions and urged the company to fulfil its promises through real actions, and the Director of PT SAE, who stated that the company was supplying clean water to the affected villages.

Meanwhile, the other conflict-framed story covers a political dispute between two candidates for the governor of Central Java, Ganjar Pranowo (the incumbent) and Sudirman Said (the former MEMR minister), over who is to blame about the project. While the former MEMR minister denounced the provincial government (alluding to the incumbent) for not handling the ecological issues surrounding the project development well, the incumbent reminded that the project was approved by the former MEMR minister. A noticeable finding is that these sources refer to attribution of responsibility frame when tracking down who made mistakes and who should correct them.

Furthermore, a conflict frame is used in neutral and two-sided stories. In these stories, two contrasting groups emerge. The group supportive of the project includes: 1) The company, represented by the Director, the Community Relation, the area manager, and a spoke-person of PT SAE; 2) the central government, represented by the Director of Geothermal and a staff at the MEMR's Directorate General of New and Renewable Energy, and Energy Conservation (DG-NREEC); and, 3) the regional government of Banyumas Regency, represented by the Economic and Development Assistant of the Regional Secretariat. Those dismissive of the project include the coordinator of "*Aliansi Selamatkan Slamet*" (Save Slamet Alliance), an activist from "*Komunitas Peduli Slamet*" (Care for Slamet Community) or "Kompleet Purwokerto", a citizen from Panembahan village, and a researcher from "*Lingkar Kajian Banyumas*" (Banyumas research community). Also, different from the entirely negative news stories, there is a neutral party found the group of two-sided stories, namely the Secretary of the Centre for Renewable Energy Research and Development at Universitas Jenderal Soedirman.

The opposing group questioned the company regarding the Environmental and Social Impact Assessment (ESIA) documents and another requirement fulfilment of the project, insisting that the project would disturb the ecosystem around Mount Slamet and negatively affect the residents' daily lives. Their accounts point to environmental problems caused by the exploration, especially the polluted river and flood in Banyumas, Purwokerto, and Bumiayu, warning denizens about possible ecological disasters in the future, such as drought. For a year, they viewed that the company had not been successful in mitigating the negative impacts on the environment. Therefore, the Save Slamet Alliance conducted a long march protesting against the project. Responding to these matters, PT SAE admitted that the murky river was the company's fault but maintained that they had done preventive and mitigation measures, as well as a total evaluation. Until reaching the exploration stage, they had followed official procedures. Regarding ESIA, the company refers to the Regulation of the Environment Minister No. 05 of 2012, Article 3 Paragraph 2a, that geothermal exploration projects in protected forests are excluded from ESIA requirements, and the project developers only need to conduct UKL-UPL. Additionally, there was perceived miscommunication about the actual area needed for the project, and the company asserted that they are requested to and will restore the land twice as much. The company would also minimize forest logging as this is suggested to be more economically effective.

Despite rejections, the project carries on as the company holds legal permission from the government. It was reported that the drilling process needs to continue in another area with more prepared infrastructure. The company was conducting a re-evaluation of geothermal potential on Mount Slamet, as well as carrying out a feasibility study as the drilling data on Mount Slamet, such as temperature and pressure, were previously unavailable. The company would ensure that the infrastructure development for the well-pad F will not bring any negative impacts, such as the ones which took place in the earlier exploration stage of the geothermal power plant, as the company had done pre-emptive actions by building various supporting infrastructure. Commenting on this, the opposing group believed that the failure in finding geothermal resources would be a reason for the corporate to "act arbitrarily" and apply for permission to expand the exploration area. According to them, unfortunately, the government "arbitrarily" always gives permission even though the initial impacts had occurred.

On the other hand, the company stressed that to issue permits, the government must have done a thorough study and consideration. Otherwise, permission would not have been given to the company if adversative impacts were projected. In fact, in those stories, the idea that geothermal is a green energy source, thus environmentally-friendly, is repeatedly found and conveyed by the supporting group, who elaborated on the potential of geothermal energy and the assurance that the exploration should not be hazardous as everything related to the geothermal project has been studied. The regional government of Banyumas Regency even went far by rhetorically asking if the residents would prefer nuclear, fossil fuel, or coal energy and asserted that geothermal is the right choice to accelerate the accomplishment of the 35,000 MW national energy project. Separately, the government's representative from MEMR stated that challenges in any geothermal exploration stage always persist in a number of locations in Indonesia that an exploration area needs to be wide enough to locate geothermal energy on the right well.

Another issue raised by the opposite side is the lack of public information sessions by the government and the company. The topics which are deemed important to deliver include the importance and benefits of geothermal energy for the commonwealth and also any possible environmental impacts of the project, for example, the release of toxic gases, landslides, and the need for water to be used for the drilling process. One highlighted point is transparency about the project. It is reported that on December 13, 2017, in Purwokerto, the company conducted an information session on the commencement of drilling activities, which was attended by various institutions, non-profit and community-based organizations, college students, and representatives from universities. This event was dissented by some residents who brought the sample of murky water, which they attribute to the geothermal project. They were initially disallowed from entering the event venue until reaching a negotiation, accompanied by the head of Panembangan Village. In addition, in spite of the information dissemination event in Bumiayu Village, the contrasting group requested that similar but more detailed information was delivered to denizens in five other villages in Banyumas. This is needed as residents were concerned about the pollution in the source of water, they use daily. In response to this, the company indicated that different regions have dissimilar technical problems. For instance, in Brebes, arising concerns are transportation, heavy equipment, and damaged and narrow roads. Therefore, the information session in Banyumas might have different content depending on the specific situation there.

The only neutral voice in the stories is a report on an interdisciplinary discussion on the potential and the environmental drawbacks of the project conducted at Universitas Jenderal Soedirman. The invited speakers covered both sides of geothermal; while the construction of the Baturraden geothermal power plant poses risks to the environment, such as polluted water, which can negatively affect the agriculture, fisheries, and livestock sectors, geothermal is acknowledged as an environmentally-friendly substitute to fossil energy that can be utilized to satisfy the residents' electricity needs. It is noted that conflicting parties were present and intensified

the tension. Commenting on this, a representative of the university advised that the parties being at odds should be open-minded to be able to understand each other without any coercion. He underscored trust issues as the root problem and admitted that developing mutual trust will not be a swift process. In this context, he maintained that Unsoed as an institution has to display independence.

Meanwhile, as mentioned formerly, positive stories about the project were written by MEMR and five national news media, quoting the Director of Geothermal from MEMR's DG-NREEC, as well as the Director and a public relations staff of PT SAE as the sources. In general, these stories report the progress of the project, specifically the preparation phase for well exploration. One of them covers a site visit to Banyumas and a coordination meeting with local government officials and the company about the plan for continuing the project after being held up for 3 months due to disposal management in Prukut River. The dominant frame is the economic frame as these stories mention the amount of investment in the project by the company and the importance of the project for the country as a national strategic project to fulfil the national energy target, as stipulated in Presidential Regulation No. 3 of 2016 concerning the Acceleration of the Implementation of National Strategic Projects and Presidential Regulation No. 4 of 2016 concerning the Acceleration of the Development of Electricity Infrastructure. Also, because geothermal energy cannot be exported and can only be used in situ, its development needs to be supported by all parties in order to realize energy independence. This is supported by arguments on the environmental benefits and lower risks of geothermal projects compared to other energy sources, such as fossil fuel and gas, as geothermal projects produce lower underground pressure and CO_2 emissions and need a narrower area for exploration.

Another frame used is the attribution of responsibility, emphasizing on the solutions put forward by the company to address the reported problems about the project development. The stories lay out some mitigation acts by PT SAE to address the polluted river, such as an investigation into the murky waters, disposal management in Prukut River, the provision of financial compensation and clean water for residents in seven affected villages, and a community development program for the local community, including the recruitment of local workforce to be involved in the project. It is also stated that the company had yet to receive official complaints from the residents regarding the impacts of the murky waters which become their main source of water and support economic activities, but the company would list down the implications and compensate for these, including for the residents' paddy fields which were less fertile due to being struck down by sand material. Indeed, the Director of Geothermal at MEMR noted that since the project is being developed in a mountainous area surrounded by steep cliffs, the activities carried out must prioritize Health, Safety, and Environment aspects.

The following diagram summarizes the arguing parties and the arising issues about the development of Baturaden geothermal power plant in a simplified version. Those who are against the project include local NGOs, denizens, and a local governmental institution (*Dinas LHK*). Major concerns reported are the environmental impacts of the project, the lack of information and transparency from the government and the company, as well as the implied issue of power imbalance. These problems are mentioned in the local context, such as how the project has affected the local communities and environment. Meanwhile, those supporting the project comprise the MEMR, PT SAE, and the local government of Banyumas Regency, who emphasize on the importance of the project as a national strategic project to cater to the demand for electricity and the substantial amount of financial investment in the project. Unlike the opposing party, the supporting group talk about these issues in a greater context, which is on the national level. In the middle of the two groups is Unsoed as a neutral party.

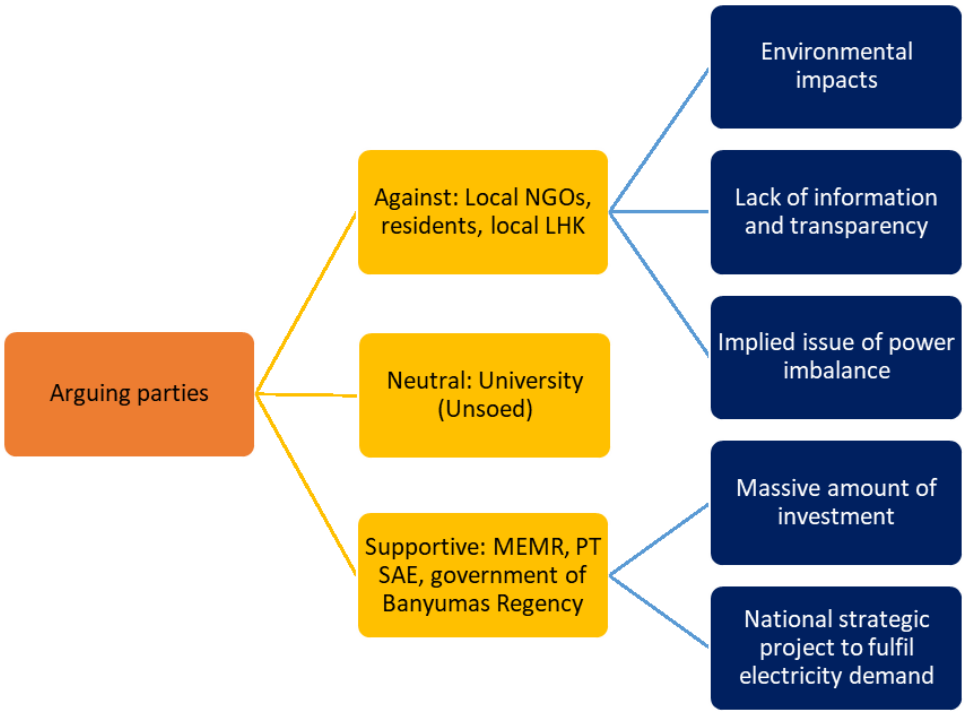

Figure 4: Mapping of the issues and parties

3.3 Comparative Analysis Between the Official Documents and News Stories

To triangulate all data, the results of the document analysis and the media content analysis were compared. This process resulted in four key takeaways.

First, while the official documents inform that the project has been started since 2008, the project seemed to receive minimum media attention until 2017, except for one news story containing concerns from the residents on the website of the government of Melung Village. More massive civil works took place in 2016, but as far as the corpus of this study is concerned, no news media reported on the project in the same year. It was in 2017 when the public began to speak up about the project, and this might be because the problems of landslide and murky river water happened in late 2016. The fact that most of the media are national news media, thus most likely located in Jakarta, may explain why it took some time until the residents' complaints reached the online mass media.

Second, the official documents note that investigations into geothermal potential around Mount Slamet have been carried out since 1997 and as PT SAE has been involved since the beginning in 2008, it is safe to assume that both the government and the company are already well-informed about the benefits and risks of the project. This said the claim that the government being arbitrary or acting based on random choices in granting permission is arguably inaccurate.

Thirdly, concerning the issue of transparency, the opposing party accused the company and the government of revealing little to no information about the project to the residents. Meanwhile, according to the official documents, there have been at least three information sessions for the public conducted by the company: 1) In November 2011, PT SAE delivered a *UKL/UPL* presentation to local universities and local governments; 2) In November 2016, PT SAE held an information session in front of the local government (Banyumas Regency) and local communities; and, 3) In December 2017, another information session on drilling activities was held in Banyumas Regency. Indeed, although the company conducted information sessions, the audience were rarely the residents themselves. Even in one news story, some complaining residents were initially prohibited from entering the venue of the information session on December 13, 2017. Based on these findings, it can be concluded that the denizens might not have been given sufficient information about the project. However, it should be noted that after each information session, the company and the central government were not the only ones holding the information about the project. Hence, the chain of information dissemination can be extended by members of local governmental bodies, universities, and NGOs who had attended the sessions directly to the denizens.

Finally, speaking of the frame of responsibility attribution, in one of the negative stories, two candidates running for governance in Central Java were alluding to who holds the highest authority regarding the project between MEMR and the government of Central Java. In fact, based on the official documents, Baturaden geothermal power plant development is only possible subject to the permission from relevant governmental institutions, both the central and the regional. The project needs to go through a number of steps until the issuance of permits from various stakeholders. Still, any decision-making is up to the government, not the company or the local communities. However, almost all sources in the stories suggest that it is the company that needs to take the blame. Indeed, as the company acts as the project developer, all technical matters become their responsibility. Meanwhile, after ratifying the permits for the project, the government assumes no further responsibility beyond their regulatory role. For example, in the news stories, both MEMR and the government of Banyumas Regency show support for the project, yet when a problem occurred, MEMR pressured PT SAE into resolving the environmental issues comprehensively, while the government of Banyumas Regency went to the governor of Central Java to complain about the project. In this context, their role is more supervisory than duty-bound, thus unlikely to be culpable. In contrast, it is more certain that residents are at the bottom of the power hierarchy.

4. CONCLUSION AND RECOMMENDATION

The success of a geothermal development project is, by and large, determined by a wide range of factors, including the social aspects. While preventing social conflicts is desirable, having the right knowledge and capacity to manage social crises in the development of a geothermal power plant is imperative because the level of reception from the residents to a project is not always easy to predict. One of the preventive measures that can be taken is to conduct large-scale public engagement based on a geohazard mapping in the area of the project and those surrounding the location so that all local communities that may be affected will be well-informed since the beginning.

In times of social conflicts, one of the first steps to do is understanding the core of the problems, particularly the nature of social dynamics. This may include finding out the opposing parties and the different views they hold towards each other, interpreting the tension and power relations between the stakeholders, and uncovering the missing links. In addition to interacting directly with relevant parties, gathering initial information from readily accessible documents, such as the record of activities in the project development and news articles, can be helpful in mapping the arising issues and following the conversation in a time-effective manner.

In the case of Baturaden geothermal power plant development, based on the study of official documents and online news stories, the dividing line is not necessarily between the company and the people. The conflicting discourse in the news stories is that narratives about environmental problems are replied with promises for economic return. The discussion can be more balanced if each party takes into account overlooked aspects. For instance, the government and the company can talk more about possible environmental risks of the project, whereas the residents can bring up the economic benefits which they personally obtain from the project. The residents and local NGOs can also be educated more about the environmental benefits of geothermal projects compared to other energy sources. This is to bridge the denizens' focus on the local context and the government's concern about the national energy demand, two issues which do not match because both parties pay attention to different scopes of the problems.

Therefore, one central factor in solving the conflicts is the exchange of information between the government, the company, and the local communities, which should be smooth and two-way. On the part of the supporting groups, such as the company and MEMR, more comprehensive information about the project can be delivered. The government and the company can consult to communication specialists or work together with the Communication Division at MEMR's DG-NREEC to plan for and design public information materials to be distributed. The purpose is to ensure that communication between relevant parties is effective.

It is also recommended for the company and the government to establish a good relationship and open communication with media since the beginning of project development so that the media can be involved as agents of public information who disclose official news about the project. This is to avoid the circulation of false information, if any, which can heighten social tension related to the project.

Despite succeeding in identifying the surface and underlying issues and different attitudes toward the project, this study was limited by the sources, all of which are secondary. As a point of departure, the methods of document analysis and media content analysis can suffice, but this should be followed up using other means for collecting data, such as interviews with relevant stakeholders and focus group discussions. For other geothermal projects, the use of news reports may not be suitable and representative if social conflicts are not reported by journalists. Excluding print media in this study may also have left out other important social aspects. Lastly, there was only one coder in the media content analysis, which might affect the objectivity of the examination.

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