JOURNAL LA SOCIALE

VOL. 05, ISSUE 04 (1115-1129), 2024
DOI:10.37899/journal-la-sociale.v5i4.1320

NGO Trend Asia's Efforts in Controlling Transboundary Air Pollution in Jakarta: A Case Study of the Suralaya Steam Power Plant

Salsabil Teratai Putri[1], Deni Angela[1]

[1]*Political Science, Faculty of Social and Political Sciences, Universitas Pembangunan Nasional Veteran Jakarta, Indonesia*

**Corresponding Author: Salsabil Teratai Putri*

Article Info

Article history:
Received 8 May 2024
Received in revised form 4 June 2024
Accepted 14 June 2024

Keywords:
Air Pollution
Suralaya Power Plant
NGO's Strategy

Abstract

The problem of poor air pollution quality is becoming more serious often in big cities, especially in the capital city of DKI Jakarta. Apart from vehicle emissions, there are other problems that are also important due to the use of Steam Power Plants (PLTU) around the Jakarta area. PLTU Suralaya in Banten is one of the largest sectors that emits the amount of emissions that have an impact on the surrounding area. This study aims to provide a description of the strategy carried out by the Non-Government Organization (NGO) Trend Asia as an effort to control air pollution pollution in Jakarta through transboundary emissions by the Suralaya PLTU. This research uses qualitative case study research methods and will be strengthened by the theory of environmental NGO strategy by MC. Cormick as an analysis knife of this study. The results of this study explain the strategies used by Trend Asia in efforts to control transboundary emission pollution of the Suralaya coal-fired power plant from nine MC strategies. The relevant Cormick used six strategies, namely Working with Elected Officials, Undertaking Research, Campaigning and Organizing Public Protests, Promoting Media Coverage of Environmental Issues, Information Exchange, and Generating Local Community Involvement in Environmental Protection.

Introduction

Jakarta's air quality is currently classified into a very poor category. Based on data from air quality monitoring site IQAir in real time, it shows that Jakarta has consistently been in the top 10 since May 2023 as the city with the worst air quality in the world. The cause of poor air quality in Jakarta does not only come from one source but there is another combination of activities such as the industrial sector, smoke from transportation, and coal-fired power plants (PLTU), which contribute to the decline in air quality in Jakarta (Maharani & Aryanta, 2023)

Another cause that also has a significant impact on air pollution in Jakarta is caused by the activities of large-capacity coal-fired power plants (PLTU) on the island of Java, especially those around Jakarta. A report by the Centre for Research on Energy and Clean Air (CREA) revealed that one of the main triggers of poor air quality in Jakarta is due to the contribution of coal-fired power plants located in buffer cities or surrounding areas. The Jakarta area is still the city center surrounded by various kinds of power plants around within a radius of 100 kilometers (km).

The poor air quality in Jakarta is contributed by several provinces around it, namely from Banten and West Java Provinces where there are PLTU projects that then contribute to worsening air quality in Jakarta (Interview with Khalisa Khalid, 2023). The provinces of Banten and West Java have certainly felt the impact of more severe direct exposure from coal burning activities. But another thing that must also be noted is that the impact released from

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

coal burning activities by the PLTU can also worsen the surrounding area through cross-border emissions between regions.

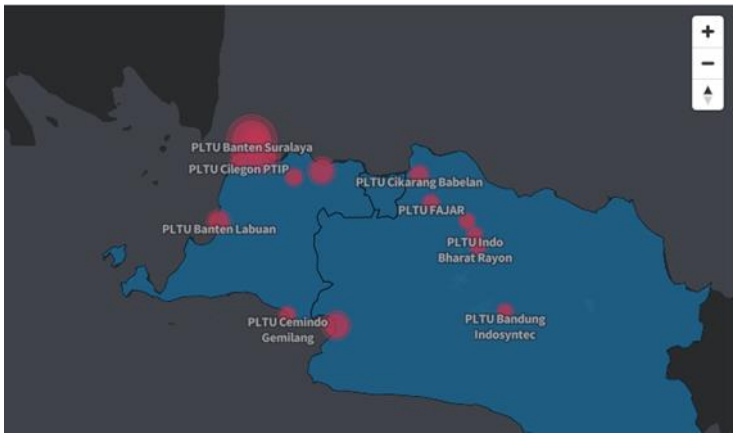

Figure 1. Map of the Distribution of PLTU Operating Around Jakarta

Based on the picture above, some of the distribution of coal-fired power plants that have a distance of about 100 km from Jakarta, the largest capacity compared to other coal-fired power plants is occupied by Suralaya PLTU units 1-8 with a capacity of 4,000 Megawatts (MW) located in Banten. Even today, PLTU Suralaya is still establishing new units of the national development program, namely Java 9 and 10 (2x1000 MW) reaching 2,000 MW. The development raises pros and cons for various parties because it will have a worse and greater impact on the environment and health from coal burning production activities carried out by the Suralaya PLTU (Apriando, 2020)

Broadly speaking, the construction of PLTU Suralaya Jawa 9 and 10 reaches almost 50% of the total existing capacity of the Suralaya PLTU complex from units 1-8. The construction of the new power plant will pose a greater threat to the community around the power plant, especially for health, such as respiratory problems (ISPA) due to dust, coal burning and toxic waste released from PLTU activities. In addition, the construction of PLTU Jawa 9-10 is actually no longer needed because Java-Bali electricity needs have been met and even oversupplied, which will later affect state losses and aggravate climate damage, health and environmental threats getting worse. The expansion will only exacerbate the adverse impact felt by people in Banten and also surrounding areas such as Jakarta (Rahmayanti & Ilyasa, 2022)

Until now, there have been eight emissions of the Suralaya PLTU that we can feel the impact on the environment and health, if added new units that are being built with a fairly large amount of capacity and coal consumption is also large, it is conceivable that environmentally other adverse impacts will arise more massively (Interview with Novita Indri, 2023). The activity of coal-fired power plants will produce fly ash in the form of fine grains derived from coal burning. New burning coal dust will threaten short-term and long-term health, if it enters the human respiratory system will cause long-term blackened lungs (black lung) which can cause death (Urrohmah et al., 2020)

The results released from burning coal will be a source of pollutants in the form of Particulate Matter (PM) 2.5. The distribution of PM 2.5 depends on wind speed, if the wind is strong, the exposure to dust released can reach distant areas that are not in one PLTU area. Scattered transboundary emissions also depend on rainfall. The potential for cross-border air pollution has the potential to occur considering the large number of large industrial estates outside Jakarta. Seasonal factors certainly influence the condition of decreasing air quality because in

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

the dry season the east wind will enter the Jakarta area and drier air increasingly makes an increase in PM 2.5 concentration. However, air pollution dust will remain and difficult to remove if the pollution source is still operating, so pollution can still occur repeatedly (Turyanti et al., 2023).

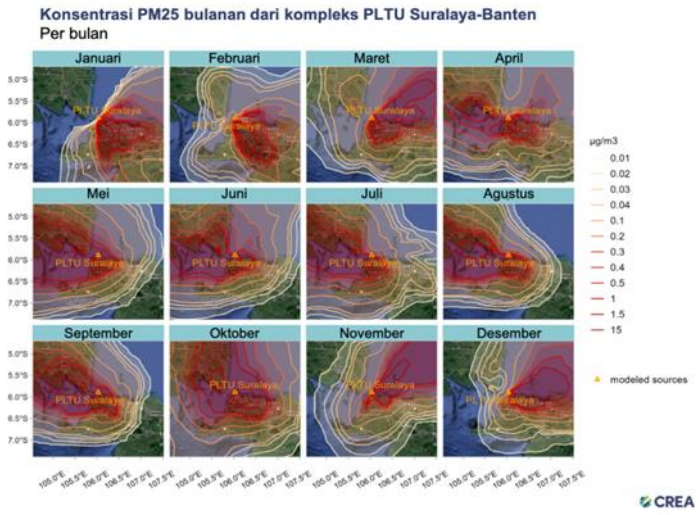

Figure 2. PM 2.5 Seasonal Pattern from Suralaya PLTU Complex, Banten 2023

A report by CREA conducted using satellite images shows that the pollution caused by the Suralaya PLTU will not only provide air pollution in parts of Banten, but will also bring the impact of pollution based on wind direction to Jakarta by contributing to producing PM2.5 concentrations in the Jakarta area. Data from CREA reinforces the fact that Suralaya coal-fired power plant has a strong correlation as one of the main sources of pollution in Jakarta. Trend Asia program campaigner, Novita Indri, said that air pollution across borders and the distance between Jakarta and Suralaya around 80 kilometers of wind direction can bring PLTU pollution to the Greater Jakarta area. Although air pollution comes from various activities, it is also mostly caused by the number of coal-fired power plants, one of the largest complexes located in Banten province (Myllyvirta et al., 2020)

In responding to this problem, Non-Government Organization (NGO) Trend Asia as an organization that has a focus on accelerating energy transformation and sustainable development also makes efforts in fighting for the right of the community to get clean air quality. As an environmental organization, Trend Asia monitors issues related to the energy grid of coal power plants in order to accelerate the phase-out of fossil fuels, and encourage the use of renewable energy. Trend Asia identifies problems that occur at the Suralaya coal-fired power plant, especially regarding cross-border emission data on Jakarta's pollution caused by the power plant, which is still very minimal. Information disclosure about PLTU emission data is not disclosed to the public because of the company's trade secrets.

The State Electricity Company (PLN) had rejected the request for disclosure of Suralaya PLTU emission data. Poor transparency of public information disclosure from coal-fired power plants should have a key role in managing the impact of energy choices on the environment and public health. Efforts made by Trend Asia to obtain public information data disclosure by building cooperation with other organizations such as, Greenpeace, Walhi, Koalisi Bersih Indonesia, PENA masyarakat, and the Legal Aid Institute (LBH). The request for a dispute over information disclosure related to emission data and waste treatment of the Suralaya coal-fired power plant was only successfully granted in January 2024 to obtain information openly related to public health and air pollution (Puspaningtyas et al., 2024; Myllyvirta et al., 2020)

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Supervision carried out by Trend Asia also had a complaint against the World Bank to the Compliance Advisor Ombudsman (CAO) regarding the construction project of two coal-fired power plants, namely Java 9 and 10 together with Suralaya community representatives with Pena Masyarakat and Inclusive Development International and Recourse. The complaint presented describes the involvement of private institutions as lenders, namely a subsidiary of the World Bank, International Finance Corporation (IFC) in the Suralaya Java 9 and 10 development projects. In this case, IFC was identified as involved in equity investment to its client, Hana Bank Indonesia as one of the funders of the Java 9 and 10 PLTU projects. Trend Asia together with a combination of community organizations demand that the development of Java 9 and 10 be stopped immediately and compensate for the losses suffered by the community fairly (Interview with Novita Indri, 2023).

Air pollution that occurs in big cities, especially in Jakarta, should be addressed immediately because it is very related to the freedom of the right to get clean and decent air for the community. The government should also be more critical in looking at the relationship that occurs due to air pollution due to cross-border emissions of coal-fired power plants to increasing residents' vulnerability to disease (health data), environmental data and the burden of industrial activity, especially regarding the externalization costs of coal-fired power plants that have been oversupplied with electricity (Lutfiah et al., 2023) .

At least there is an initial research that becomes a reference in this paper, namely the writing of Hady Ho Al-Hakim and Made Fitri Maya Padmi entitled The Role of Greenpeace Indonesia in Managing Air Pollution in Jakarta Through 2017-2019. Hady and Made's research explains the role of Greenpeace Indonesia in handling air pollution cases in Indonesia, especially Jakarta through various means such as campaigns carried out as a form of protest. The advantages of the study have predicted that air pollution in Jakarta can get worse every year, Hady's research provides data ranging from 2017-2019. Hady and Made explained the strategy carried out by Greenpeace with the campaign through a hashtag that reads #Jakarta UnderPollution #WeBreathTheSameAir the purpose of the campaign was to voice that Jakarta needs clean air free from pollution. Hady and Made's research has weaknesses related to the lack of in-depth explanations regarding the success of Greenpeace Indonesia's role in reducing air pollution in Jakarta through campaigns with the hashtags #JakartaUnderPollution and #WeBreathTheSameAir. The focus is explained through the role of Greenpeace Indonesia only through one way, namely only by campaigning for action, and there is still a lack of explanation between the disputing parties and the final results of the campaign that has been carried out still has not had an effective impact in handling air pollution in Jakarta (Al-Hakim & Padmi, 2022)

The difference that will be emphasized in this study is that the cause of poor air quality in Jakarta is not only caused by one source, but there are other sources that are also important to note due to coal-fired power plants. Coal burning carried out in one area can have an impact on the surrounding area, as discussed in this research topic related to air pollution in Jakarta through transboundary emissions of the Suralaya PLTU in Banten. The pollution caused by the Suralaya PLTU not only provides air pollution in parts of Banten, but will also bring pollution impacts based on wind direction to Jakarta. The excellence of this research lies in the use of environmental NGO strategy theory by MC. Cormick as an analysis knife in the discussion. The environmental advocacy strategy will explain in detail the various strategies that environmental NGO Trend Asia can do in an effort to advocate as an effort to deal with air pollution problems. The success that will be explained in this study Trend Asia advocates in collaboration with community organizations successfully in opening public information disclosure related to pollution data released by the Suralaya PLTU.

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Burning coal by coal-fired power plants has the potential to damage the environment and have adverse health impacts on the community. The implementation of Net Zero Emission (NZE) or zero carbon emissions by increasing renewable electricity should be done. The application of renewable electricity is related to sustainable development to improve economic welfare. The pillars of sustainable development are economic, social and environmental (Andris et al., 2024) . The addition of new units at PLTU Suralaya Jawa 9-10 will have a more massive economic, social and environmental impact. Even today the electricity supply in Java-Bali is already oversupplied which will later make the burden of economic losses heavier for the country. Air pollution due to dust burning coal-fired power plants if left unchecked efforts to overcome it will cause other serious impacts. The role of Trend Asia as an environmental organization is very necessary in dealing with environmental problems, especially the problem of air pollution in Jakarta due to transboundary emissions of PLTU. Trend Asia is able to provide information through digital campaigns carried out with the use of social media. In addition, the way Trend Asia collaborates with community organizations to advocate for the government also monitors the government's performance in dealing with air pollution in Jakarta due to transboundary emissions of the Suralaya coal-fired power plant in Banten.

Methods

Researchers use qualitative research methods. According to Creswell, qualitative research is an approach used to explore and understand an individual or group in which there is a social problem, so that from the problem can interpret and gain a deeper understanding of an attitude or action. The type of research in this paper is explanatory with a case study approach. According to explanatory research, it is research that explains the reason for the occurrence of an event by using the analysis of the relationship with the one under study in order to provide solutions from the results of the study. As for data collection techniques, this study used primary data collection techniques through interviews. Data is collected by researchers directly from the main source used as informants and research objects through interviews. Secondary data are obtained from several sources such as published works from books, journals, articles, mass media reports, and historical documentation related to research problems (Sugiyono, 2018).

Results and Discussion

Air Pollution in Jakarta Due to Transboundary Emissions of Suralaya Banten Power Plant

Jakarta's air pollution is not only an incidental occurrence, but should be a serious structural problem. This is because air pollution can make a decrease in the quality of life from various aspects. In the aspect of public health, due to air pollution can cause several diseases such as heart disease, acute respiratory tract infections (ARI), chronic lung disease, lung cancer and diabetes, and even death. Generally, diseases arising from air pollution threaten the respiratory tract such as ARI. In Jakarta, ARI disease had occupied the highest cases due to air pollution. (Sudaryanto et al., 2022).

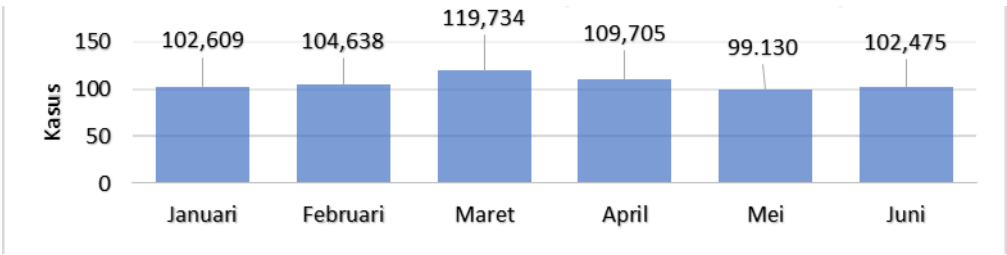

Figure 3. Table of Number of ISPA Cases in Jakarta (January-June 2023)

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Based on data described by the DKI Jakarta Health Office (Dinkes) explained that ARI cases in Jakarta every month reach 100 thousand cases from 11 million residents. The highest cases occurred in March 2023 reaching 119,734 cases. The total number of periods in January-June 2023 reached 638,291 cases of acute respiratory infections (ARI). The number was compiled based on the average number of ARI cases found in hospitals and health centers in Jakarta. The high number of ARI cases in Jakarta due to poor air quality, if not immediately overcome will cause various other diseases to get worse (Nabilah, 2023).

Jakarta is one of the cities that also experiences the level of air quality conditions that are not suitable for the human respiratory system, with the amount of air concentration far exceeding the standards set by the World Health Organization (WHO) with recommendations for PM 2.5 fine dust particulate matter of 5 µg / m³ (micrograms per cubic meter). In the Government Regulation of the Republic of Indonesia Number 22 of 2021 concerning the Implementation of Environmental Protection and Management, it sets an air quality standard of 15 µg/m³. Based on air quality standards set by WHO and Indonesian Government Regulation Number 22 of 2021, Jakarta is more often in the position of air quality standards not in accordance with predetermined standards. Even the position of PM 2.5 makes Jakarta's air quality in an unhealthy standard for the human respiratory system (Meila et al., 2024).

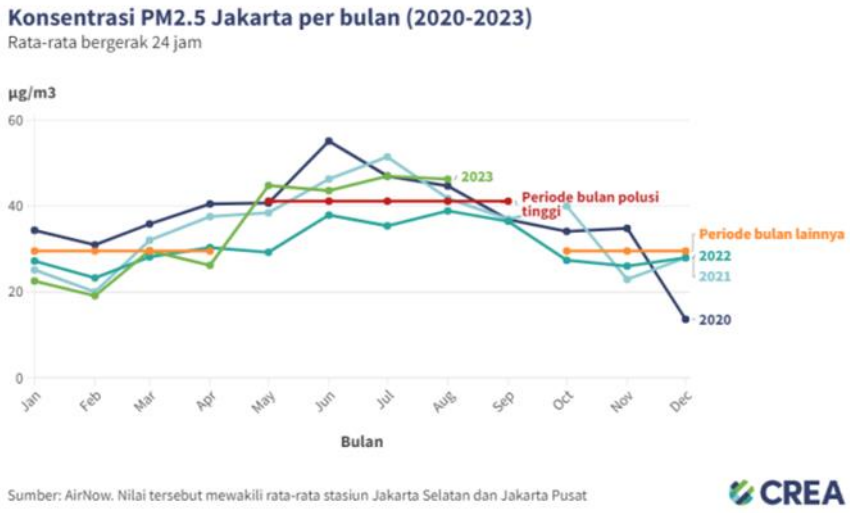

Figure 4. PM 2.5 Jakarta Concentration per Month (2020-2023)

Air quality in Jakarta throughout 2023 exceeds the air quality standard illustrated in figure 4, namely PM 2.5, indicating that the people of Jakarta have been exposed to PM 2.5 at levels of 25 to 45 µg/m³. This level has entered a phase of unhealthy for public health, especially vulnerable groups. In September 2023, air quality in Jakarta even briefly reached an air quality index of 159, with PM 2.5 around 71.8 µg/m³. PM 2.5 has a concentration level to measure air quality. (Rosa et al., 2020) (Apriando, 2020)

Table 1. Particulate Matter (PM) Concentration Information

PM 2.5 Concentration Level	
0-15.5 µg/m³	Good
15.6-55.4 µg/m³	Keep
55.5-150.4 µg/m³	Unhealthy
150.5-250.4 µg/m³	Very unhealthy
>250.4 µg/m³	Dangerous

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

PLTU Suralaya, Banten produces an average annual PM 2.5 concentration of 0.2-0.4 μg/m³ to Jakarta, it looks small because PLTU Suralaya is only one of the many coal-fired power plants that have an impact on air pollution in Jakarta. However, this is still a fact that the Suralaya PLTU is also one of the contributors to the poor air quality in Jakarta. Trend Asia also agrees that the Suralaya PLTU is one of the causes of air pollution to Jakarta based on modeling data and reports made by CREA by looking at other sources of contamination also in Jakarta (Interview with Novita Indri, 2023).

PT Indonesia Power Suralaya Power Generation Unit (PGU) is one of the power plants owned by PT Indonesia Power, which is part of a subsidiary of PT PLN (Persero). PLTU Suralaya is one of the closest power plants to Jakarta located at the northwestern tip of Java Island, Pulo Merak District, Cilegon City, Banten, exactly seven kilometers northeast of Merak Port and about 150 kilometers west of Jakarta. PT Suralaya is one of the largest coal-fired power plant complexes in Indonesia, the largest coal-fired power plant in Indonesia with a production of about 50% of PT Indonesia Power's total production and contributes about 17% to electricity needs in Java, Madura, to Bali (Gandhawangi, 2019).

Included in one of the major projects for electricity acceleration in Java Island with a capacity of 1x625MW. PLTU Suralaya was first built in 1984 with two generating units and continued to be increased to seven units initially with an installed capacity of 3,440 MW. Then it operated in 1985 with 8 units owned already reaching 4,000 MW. Then PLTU Suralaya at the end of 2019 has added a new unit that will be used in order to operate to provide additional electricity supply for Java, Madura and Bali, with construction plans already carried out and starting to run since January 2020. The planning for the construction of PLTU Suralaya shelters 9 and 10 reaches a total capacity of up to 2X1000 Megawatts managed by Barito Pasifik (Gandhawangi, 2019).

But actually, the Java 9 and 10 PLTU projects are irrelevant investments because they force the realization of projects that are not strategic. If forced to continue, the construction of this project will provide such a large economic loss because the state will bear the burden of costs incurred from over supply (Interview with Novita Indri, 2023). Moreover, the amount of emissions released is getting bigger in one area and will pollute air pollution in Banten and the surrounding area, namely Jakarta. The amount of capacity in the project will be very large, meaning that the consumption of coal to be used is also getting bigger as well. The emissions released more massively come from coal burning dust released from the Suralaya 9-10 PLTU project.

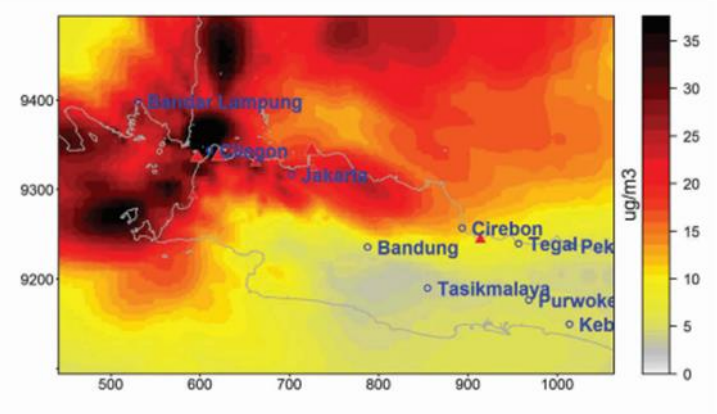

Figure 5. Daily PM 2.5 Deployment Range of Existing and New Power Plants

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

The data used in the modeling of figure 5 using the modeling system Calmet-Calpuff to explain the picture of the distribution of PLTU emissions. The results in the picture show that the most affected areas based on the concentration of polluted air are indicated by the darker the color, the higher the distribution of air pollution. System projections make it clear that there are indications of cross-border emissions to the surrounding area from the PLTU in Banten having a polluting impact on the Jakarta area. The impact of the spread of PM 2.5 produced in Banten can bring toxic air to surrounding areas such as Jakarta, Bogor, and Lampung, and surrounding areas. The pollution comes from PLTU that is already operating, not including PLTU that is being built and this condition will be exacerbated from the construction project of PLTU Jawa 9 and 10 (Urrohmah et al., 2020)

Some government officials have ignored the contribution of coal-fired power plants as the cause of severe air pollution in Jakarta. For example, Erick Tohir, Minister of SOEs that holds and fosters state-owned enterprises, including PLN, claims that the temporary suspension of Units 1-4 with a capacity of 1.2 Gigawatts has no impact on air pollution in Jakarta. The Ministry of Environment and Forestry (KLHK) also denied the high air pollution in Jakarta by mentioning the Suralaya PLTU complex based on satellite images spread through opposite wind directions from Jakarta to the Sunda Strait.

The closure of the Suralaya PLTU was carried out but did not bring any changes and air pollution in Jakarta remained high because indeed the Suralaya PLTU can be said to only represent 20% of the capacity of all existing units. In addition, the experiment to stop the Suralaya – Banten PLTU complex at that time only addressed one of the sources of air pollution from the many power plants that contributed more to pollution in Jakarta, namely the Cikarang Babelan, Indramayu, Cilacap, Lontar, and Cirebon areas. Another problem found from the government is still lacking in providing transparency in reporting industrial emissions in Indonesia, so until now there are still no definite details regarding the termination of facilities.

The efforts of the DKI Jakarta Provincial Environmental Office (DLH) make efforts to manage air quality by monitoring carried out using air quality monitoring stations (SPKU). However, the distribution of the number of SPKU still does not represent the area of Jakarta so it cannot describe the condition of Jakarta's air quality as a whole. The distribution of SPKU has only spread across 5 areas, including in Bundaran HI, Kelapa Gading, Jagakarsa, Lubang Buaya, and Kebon Jeruk. In addition, DLH Jakarta only emphasizes poor air quality caused by motor vehicle emissions, industrial activities, and even forest fires. The cause of the transboundary emission of coal-fired power plants is not mentioned as a factor in the decline in air quality in Jakarta by DLH Jakarta (Perdinan et al., 2023)

DLH Jakarta provides a statement in the form of a report that Jakarta is the center of trade and service activities that make transportation activities very high. One of the sources of emissions that is often mentioned is due to high traffic density and lack of public transportation infrastructure. Motor vehicles are said to be the cause of one of the sources of udata polluting emissions in Jakarta. The government is thinking about important steps to take by reducing vehicle emissions, improving public transportation, increasing industrial supervision, and encouraging the use of clean energy (Perdinan et al., 2023)

The DKI Jakarta Provincial Government should cooperate across actors to handle cross-border emission pollution. Efforts to control air pollution must be handled immediately, for example by adding SPKU tools in the Jakarta area. Not only that, but also must enforce emission test rules and sanctions for coal-fired power plants that violate emission quality standard rules. On the issue of air pollution, the government as a stakeholder must also involve the private sector. There is a need for encouragement from the government to implement technological

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

developments related to industrial pollution sources (Naryono, 2023; Feberina et al., 2021). The problem of air pollution cannot be separated from state organizers as duty bearers to provide fulfillment, protection and enforcement of the right to clean and healthy air. Given that air pollution is an environmental issue, the role of Non-Government Organizations (NGOs) as actors is needed to be able to fill the void so that it can achieve the goal of clean air. A lawsuit over air pollution was filed by the Citizen Law Suit (CLS) because the air quality in Jakarta is increasingly worrying.

Asian Trend Environmental Advocacy Strategy in Tackling Transboundary Air Pollution in Jakarta

In the theory put forward by John MC. Cormick, explained that the strategy of environmental NGOs in doing their job in a particular area. The concept of an environmental NGO strategy will be used as an analysis knife in seeing the efforts made by Trend Asia as an organization that does have a focus on energy transformation in handling cases of air pollution control of transboundary emissions in DKI Jakarta due to the Suralaya PLTU. Trend Asia is an environmental NGO that has a focus on accelerators of energy transformation and sustainable development in Asia. Through the explanation and understanding of the theory, Mc.Cormick will map the strategies used by Trend Asia in doing its job as an environmental NGO. The strategy used by Trend Asia in efforts to control transboundary emission pollution of Suralaya coal-fired power plant from nine MC strategies. The relevant Cormick used six strategies, namely working with Elected Officials, Undertaking Research, Campaigning and Organizing Public Protests, Promoting Media Coverage of Environmental Issues, Information Exchange, and Generating Local Community Involvement in Environmental Protection.

Working with Elected Officials, Bureaucrats, and Employees of Corporations

The first strategy is used to encourage NGOs by advocating to the government, through a lobbying or advocacy approach in order to influence policies and cooperate with the government. This is realized to be important for Trend Asia in lobbying / advocating to the government in focusing on air pollution studies in Jakarta due to transboundary emissions of the Suralaya PLTU. Trend Asia is involved in collaborative cooperation with other NGOs to advocate for the government, but the main focus is not from Trend Asia, but only to support cooperation with other NGOs joining the Clean Indonesia coalition as a supporting campaign with the government (Interview with Novita Indri, 2023).

Clean Indonesia is a combination of a group of civil society organizations formed to influence policies issued by the government, especially to abandon fossil energy, coal-fired power plants which are the main cause of the spread of air pollution. Efforts made through discussions through mass media with the hashtag #BersihkanIndonesia (Fahlepi et al., 2023). This coalition consists of 36 environmental organizations that are members and Trend Asia is one of the NGOs in it. The lobbying/advocacy approach is carried out by carrying out campaigns and raising support for stakeholders, such as conducting focus group discussions (FGDs) with the government, as well as holding meetings with Councillors at the Indonesian People's Representative Council (DPR RI) (Rahayu et al., 2022).

The advocacy efforts carried out aim to stop financing or funding from foreign banks for the construction of coal-fired power plants. Although it consists of a combination of environmental organizations / Non-Governmental Organizations (NGOs), it returns to the focus brought by each of the relevant institutions. Like Trend Asia, here has a focus on PLN's data lawsuit related to public information disclosure of emissions issued by the Suralaya PLTU as the cause of Jakarta's pollution due to cross-border emissions. Focus on the Asian trend as a supporting campaign by making publications related to problematic coal-fired power plant projects. The

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

advocacy was carried out jointly by creating a petition entitled "Reject the Construction of PLTU 9-10, Save Banten from the Threat of Toxic Dust". The collection of this petition was made through online advocacy and received support from the public as many as 17,016 petitions were signed. With the petition, advocacy to elected officials, namely President Joko Widodo, was carried out to urge the plan of the Suralaya 9-10 PLTU project in Banten (Rahayu et al., 2022).

Undertaking Research

In the concept put forward there is an Undertaking research strategy, Trend Asia focuses on studies by making output results in the form of report publications in focusing on air pollution studies of transboundary emissions due to coal-fired power plants. A scientific research study is needed first to be able to prove that what is assumed about the case being undertaken is proven to be true. Trend Asia realizes that the source of pollutants can come from transboundary emissions caused by burning coal, emissions produced from Banten but the impact of pollutants can reach surrounding areas such as Jakarta (Interview with Novita Indri, 2023). In addition, Trend Asia also focuses on the Suralaya Java 9-10 PLTU construction project whose own construction costs require up to 50 trillion rupiah, mostly sourced from foreign debt (Apriando, 2020).

Burning coal as one of the biggest contributors to air pollution, on the basis of this if only has arguments without evidence, certainly makes some parties disbelieve the statement. Trend Asia conducts research as scientific proof of what has been previously assumed. Conducted since September 2020, Trend Asia published a publication report entitled "Dust Poison in Kampung Jawara (Korean Investment Forced in the Middle of Climate and Humanitarian Disasters)". This research was conducted by Trend Asia in collaboration with Walhi Jakarta, and the Banten Pena Masyarakat community organization which has been published on a trendasia.org website and is free to access for anyone (Apriando, 2020).

The research revealed that Indonesia is still the target of investment from South Korea in the construction of Suralaya PLTU units 9 and 10. Based on observations, it was revealed that the Suralaya PLTU project units 9 and 10 with a capacity of up to 2,000 MW were funded by South Korean public financial institutions, this is contrary to the country which has committed to eliminating coal energy sources in the Green New Deal Korea manifesto which firmly ends coal projects. At the beginning of the Java 9 and 10 PLTU construction project, Trend Asia had conducted a campaign together with one of its colleagues in South Korea, a campaign carried out to voice Java 9 and 10 (Interview with Novita Indri, 2023).

Another report, Trend Asia, is also a contributor to the Centre for Research on Energy and Clean Air (CREA) article entitled "Air quality impacts of the Banten-Suralaya complex" published in September 2023. This study strengthens the findings that the Suralaya coal-fired power plant contributes to air pollution to Jakarta by measuring the base scenario. Air pollution from the Suralaya PLTU complex has a negative impact on the environment, public health and economy, based on modelling measurements found including the loss of 1,470 lives annually accompanied by economic losses that cost up to USD 1.04 billion or equivalent to IDR 14.2 trillion (Kelly et al., 2023).

This is reinforced by interview data with Novita Indri as a campaigner program and contributor in writing CREA, explaining that the data used by CREA using modeling there are tools that are commonly used to make projections such as the number of deaths and economic losses, so indeed the output is produced in the form of projections using baselines data that can bring up nominal losses (Interview with Novita Indri, 2023). So the nominal number of losses to deaths

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

is not realtime data, but only in the form of projections, because until now public data is still very difficult to find.

Another report by Trend Asia "Coming Clean: Can the IFC help end coal finance?" together with Resource, this report highlights Hana Bank Indonesia, which is still participating in financing the Java 9-10 PLTU project. Hana Bank Indonesia, a financial institution that is a client of the (Geary & Temizyürek, 2020). International Finance Corporation (IFC) in the Green Equity Approach scheme. So this report, following up on IFC and Hana Bank Indonesia in the dirty energy project, namely PLTU Jawa 9-10.

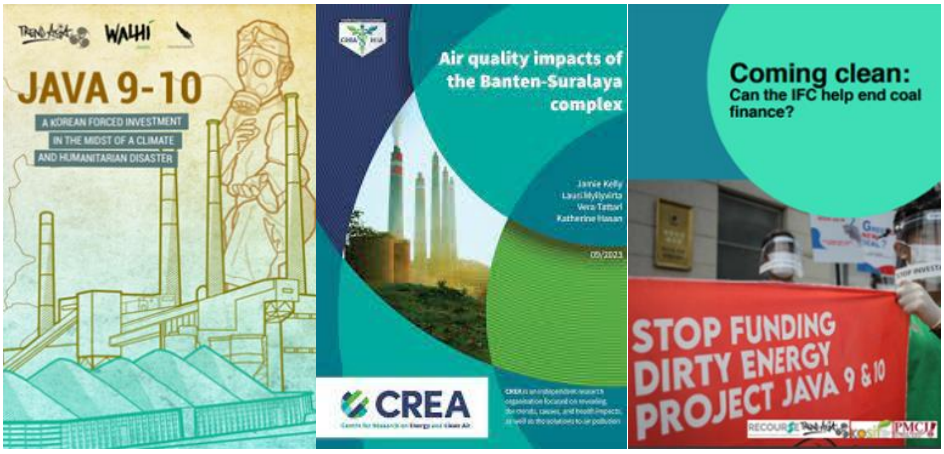

Figure 6. Trend Asia Publication Report with Other Organization Collaborations

Trend Asia's efforts in strengthening arguments can be proven from the results of research conducted in the form of publication reports. The above report relates to the harmful impact of coal use on PLTU activities. Starting from the initial investment involvement in the problematic Java 9 and 10 development projects. Then it was found that the Suralaya PLTU was a contributor to cross-border emissions of PM 2.5 air pollution for the Jakarta area. Until the involvement of Hana Bank Indonesia funds that participated in funding the Java 9-10 PLTU project.

Campaigning and Organizing Public Protests

When they have collected sufficiently accurate data and information related to the issue under study, environmental NGOs will conduct campaigns and organize public protests. From the results of the research that has been done will be the basis at the beginning to strengthen the argument about the focus of the issue. Then environmental NGOs become more courageous in carrying out campaign actions by embracing the community or collaborating with other environmental NGOs that have the same vision and mission in achieving goals. Trend Asia in carrying out several campaign actions as one of the efforts made to fight for the issue of rejection of coal-fired power plants.

Trend Asia together with local and national networks conducted a campaign against the Java 9 and 10 PLTU high-emission projects in Banten by taking action in front of the South Korean Embassy in Jakarta and in Banten, Trend Asia also collaborated with South Korean civil society organizations in filing a liaison lawsuit against the companies and banks involved, This resulted in exposure and campaigns related to the controversy over the Java 9-10 PLTU construction project made the South Korean parliament summon the government and a number of institutions that provided funds involved in the Java 9 and 10 PLTU projects resulting in the postponement of the Java 9-10 PLTU project. But unfortunately, Trend Asia still has not succeeded in thwarting the Java 9-10 PLTU project because until now the construction of the project continues. A joint campaign was carried out to voice the PLTU Jawa 9-10, but indeed

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

the passage of time could not be continued because Java 9-10 was being built (Interview with Novita Indri, 2023).

The campaign carried out by Trend Asia by increasing the capacity of citizens, this is carried out training and documentation for young people related to pollution caused by the Suralaya PLTU. Trend Asia had created a petition whose target participants came from Jabodetabek residents, residents rejected the air pollution caused by the Suralaya complex, as well as efforts from Trend Asia to invite all friends, one that this pollution issue is not only a smoke issue from public transportation but also there are systemic problems in this case is for example Jakarta which is surrounded by at least two large PLTU complexes, namely Suralaya PLTU and industrial power plants in West Java (Interview with Shilfina Widatama, 2023).

The campaign always gives a message in it so that it can reach the government that the problem of coal-fired power plants is getting worse if not immediately overcome. The government has a big role in overcoming all problems that occur related to the issue of air pollution not only because of vehicle fumes alone but there are other hazard impacts that must also be considered from burning coal. Trend Asia as an NGO seeks to sensitize all parties to be more concerned about the problem of air pollution in Jakarta. Trend Asia asks the government to cooperate across actors to overcome air pollution in Jakarta due to transboundary emissions of the Suralaya coal-fired power plant in Banten (Interview with Shilfina Widatama, 2023). The problem of air pollution cannot be handled by one party and requires more roles from the government related to air pollution in Jakarta.

Promoting Media Coverage of Environmental Issues

Every NGO must implement this strategy to provide information through the media to the public. This strategy is quite effective and easy to do in disseminating information to the public to influence policy actors. Trend Asia conducts digital campaigns also through social media to discuss environmental issues related to air pollution.

In the case of air pollution in Jakarta due to transboundary emissions of the Suralaya coal-fired power plant, Trend Asia discusses data on problems that are happening in language that is closer to everyday life, such as the case of air pollution in Jakarta in September 2023 that is going viral can be used as a momentum to realize the public that air pollution is also contributed from the PLTU. Trend Asia uses social media to be used as a means of disseminating information to the public through disseminated content.

Trend Asia provides a narrative that is easy for people to understand so that the content created on social media is conveyed to the public. The use of social media is currently an important role in campaigning for ongoing actions, as well as providing criticism of policies to the government. The social media used by Trend Asia are Instagram, Twitter, Website to publish all reports and Youtube to make informative videos related to the issue being studied (Ruhiat et al., 2019).

Information Exchange

A strategy that is no less important for environmental NGOs is to exchange and disseminate information with the aim of increasing organizational success. Of course, in conducting campaigns on the issue of air pollution in Jakarta cannot run alone, so between NGOs walking together to strengthen the advocacy that is being carried out to the government, when the discussion of environmental issues is different does not mean that all aspects in it are different, there will definitely be one element that will be achieved simultaneously because each NGO must have a different role (Interview with Novita Indri, 2023). So it is important that working together to look at the environment from different perspectives will make the coalition stronger

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

to overcome the problem of air pollution in Jakarta due to transboundary emissions of the Suralaya coal-fired power plant in Banten.

Efforts made by Trend Asia to obtain public information data disclosure by building cooperation with other organizations such as, Greenpeace, Walhi, Koalisi Bersih Indonesia, PENA masyarakat, and the Legal Aid Institute (LBH). There needs to be cooperation in information exchange to achieve the same goal, namely the request for information disclosure disputes related to emission data and waste treatment of Suralaya coal-fired power plant. PLN had rejected the request for disclosure of emission data on the grounds that the information requested was excluded information. The dispute request filed by Margaretha Quina has been granted to the public in order to obtain information related to the emission monitoring system measurement report (CEMS) and waste management report from the Suralaya PLTU units 1-8 that are currently operating (Apriando, 2020).

Generating Local Community Involvement in Environmnetal Protection

Trend Asia received support from organizations from the Banten area, especially the Pena Masyarakat organization which participated in protesting the Java 9-10 PLTU project. Trend Asia collaborates with Pena Masyarakat to find out the more detailed context of the Suralaya PLTU problem, then Pena Masyarakat is also involved in various issues and social issues that occur due to pollution from coal burning which will have a more severe impact on the people of Banten. For the Jakarta area, Trend Asia also supports citizen lawsuits or Citizen Law Suit (CLS) which made a subpoena to the state organizer containing a lawsuit from a combination of 32 Indonesian citizens for the government's negligence in fulfilling the citizens' right to get clean air.

The lawsuit has been won since October 2022, but in fact until now the government is still slow in implementing the court decision. The defendants filed are the President, Minister of Home Affairs, Minister of Health, and Minister of Environment. The defendant was found guilty on the verdict and must take firm steps to improve air quality in Jakarta. The actions taken by the government can be said to be far from adequate to deal with serious air pollution problems. The government's response by closing the PLTU, modifying the weather, to conducting vehicle emission tests, this is indeed a positive step taken. But these measures are far from adequate to reduce air quality in Jakarta.

Conclusion

The conclusion shows Trend Asia's strategy to combat air pollution in Jakarta, focusing on transboundary emissions from the Suralaya coal-fired power plant. Utilizing six of MC. Cormick's nine strategies, Trend Asia collaborates with other NGOs, undertakes research, campaigns against coal plants, promotes media coverage, exchanges information, and engages local communities. Despite some strategies being irrelevant, the organization has made significant efforts in environmental advocacy. The study recommends the government to inventory emission sources, enforce stricter emission standards, foster regional collaboration, and encourage public participation in air pollution monitoring, emphasizing the need for continuous, real-time data to address pollution effectively.

References

Al-Hakim, H. H., & Padmi, M. F. M. (2022). The Role of Greenpeace Indonesia in Managing Air Pollution in Jakarta Through 2017-2019. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *5*(3), 21758–21771. https://doi.org/10.33258/birci.v5i3.6189

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Andris, A. M. N., Ballo, F. W., & Tiwu, M. I. H. (2024). Dampak Pembangunan PLTU Ropa Terhadap Pembangunan Berkelanjutan di Desa Keliwumbu Kecamatan Maurole Kabupaten Ende. *Elastisitas : Jurnal Ekonomi Pembangunan*, *6*(1), 34–44. https://doi.org/10.29303/e-jep.v6i5

Apriando, T. (2020). *Racun Debu di Kampung Jawara: Investasi Korea yang Dipaksakan di Tengah Bencana Iklim dan Kemanusiaan*.

Fahlepi, R. A., Rahmanto, A., & Hastjarjo, S. (2023). Wacana Komunikasi Pemasaran Sosial "Gerakan Bersihkan Indonesia" untuk Indonesia yang Bebas Polusi. *Prosiding Semnaskom-Unram*, *5*(1), 115–131

Feberina, A., Mulyadi, A. W. E., & Haryanti, R. H. (2021). Collaborative governance in solving problem air pollution in Indonesia: a systematic literature review. *IOP Conference Series: Earth and Environmental Science*, *905*(1). https://doi.org/10.1088/1755-1315/905/1/012097

Geary, K., & Temizyürek, C. (2020). *Coming Clean: Can the IFC help end coal finance?* Recourse.

Kelly, J., Myllyvirta, L., Tattari, V., & Hasan, K. (2023, September 12). *Air quality impacts of the Banten-Suralaya complex*. Energyandcleanair.Org.

Lutfiah, H., Rizki, P., & Apriani, R. (2023). Analisis Pembangunan PLTU Terhadap Pencemaran Udara dan Ekosistem Laut Berdasarkan Peraturan Perundang-Undangan. *Mimbar : Jurnal Penelitian Sosial Dan Politik*, *12*(2), 418–431. https://doi.org/10.32663/8AC6ZC25

Maharani, S., & Aryanta, W. R. (2023). Dampak Buruk Polusi Udara bagi Kesehatan dan Cara Meminimalkan Risikonya. *Jurnal Ecocentrism*, *3*(2), 47–58. https://doi.org/10.36733/jeco.v3i2.7035

Meila, K. D., Dianty, A., & Veronica, L. (2024). Penerapan Pajak Karbon dalam Mewujudkan Sustainability Development Goals Serta Dampaknya Terhadap Penerimaan Pajak di Indonesia. *Owner*, *8*(2), 1849–1864. https://doi.org/10.33395/owner.v8i2.2001

Myllyvirta, L., Kelly, J., Uusiviori, E., Hasan, K., & Tattari, V. (2020). *Health Benefits of Just Energy Transition and Coal Phase-out in Indonesia*.

Naryono, E. (2023). *The Impact Of Economic Development On Environmental Pollution In The City Of Jakarta*.

Penyelenggaraan Perlindungan Dan Pengelolaan Lingkungan Hidup, Pub. L. No. Peraturan Nomor 22 Tahun 2021, Sekretariat Kabinet Republik Indonesia (2021).

Peraturan KLHK Nomor P.14/Menlhk/Setjen/Kum, 2020. Peraturan Menteri Lingkungan Hidup Dan Kehutanan Nomor P.14/Menlhk/Setjen/Kum.1/7/2020 Tentang Indeks Standar Pencemar Udara, Menteri Lingkungan Hidup dan Kehutanan RI (2020).

Perdinan, Mustofa, I., Sugiarto, Y., Anwar, M. A., Infrawan, D. Y. D., Aprilia, S., Adi, R. F., & Fardilah, R. D. (2023). *Laporan Akhir Kajian Pemantauan Kualitas Udara di Provinsi DKI Jakarta*.

Puspaningtyas, R. R. N., Lisnawati, T., Sulistia, I., & Patrianti, T. (2024). Peran Public Relations pada Isu PLTU Suralaya. *HUMANUS : Jurnal Sosiohumaniora Nusantara*, *1*(2), 198–208. https://doi.org/10.62180/33yk4160

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Rahayu, D., Prabhawa, M. D., & Susi, S. (2022). Strategi Komunikasi Gerakan Bersihkan Indonesia dalam Membangun Agenda Publik. *Translitera : Jurnal Kajian Komunikasi Dan Studi Media*, *11*(2), 1–14. https://doi.org/10.35457/TRANSLITERA.V11I2.2187

Rahmayanti, H., & Ilyasa, F. (2022). *Pendidikan Lingkungan dan Perubahan Iklim*. Selat Media Partners.

Rosa, A. A., Simon, B. A., & Lieanto, K. S. (2020). Sistem Pendeteksi Pencemaran Udara Portabel Menggunakan Sensor MQ-7 dan MQ-135. *Ultima Computing : Jurnal Sistem Komputer*, *12*(1), 23–28. https://doi.org/10.31937/sk.v12i1.1611

Ruhiat, F., Heryadi, D., & Akim, A. (2019). Strategi NGO Lingkungan dalam Menangani Polusi Udara di Jakarta (Greenpeace Indonesia). *Andalas Journal of International Studies (AJIS)*, *8*(1), 16. https://doi.org/10.25077/ajis.8.1.16-30.2019

Sudaryanto, S., Prasetyawati, N. D., Sinaga, E., & Muslikah, M. (2022). Sosialisasi Dampak Polusi Udara Terhadap Gangguan Kesehatan Kenyamanan dan Lingkungan. *Midiwifery Science Session*, *1*(1), 8–17.

Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Turyanti, A., Ariwibowo, P., Yuliasih, F., Yulian, N. I., & Oktariani Tiara. (2023). *Laporan Akhir Kegiatan Pemantauan Kualitas Udara Provinsi DKI Jakarta Tahun 2023*.

Urrohmah, N., Kelly, K. C., & Yuliani, F. (2020). Gerakan Kontra Pembangunan Shelter 9 Dan 10 PLTU Suralaya Merak-Banten. *Ijd-Demos*, *2*(2), 137–150. https://doi.org/10.37950/ijd.v2i2.54

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)