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Article

Risk Distribution in Coal Mining: Fighting for Environmental Justice in East Kalimantan, Indonesia

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Abstract: This study is aimed to explore the environmental risk posed by the unsustainable mining activities in Mulawarman village, East Kalimantan, and articulate the disproportionate impact from the perspective of environmental justice on how mining regulations affect the lives of a vulnerable community. A qualitative comparative analysis based on the legislation and administrative rules on coal mining, and a case study of Mulawarman village were adopted. The information was framed based (participatory) observation, and in-depth interview, and purposively conducted to six selected respondents. The result shows how the laws and regulations disadvantage the community and expose them to unequal treatment. The adverse effects of mining activities change the socio-environmental dynamics in this village. Being the breadbasket in 1997, Mulawarman villagers experience the loss of food self-sufficiency, and turn to the government and mining company for social welfare, and clean water. Also, inconsistent and incomplete regulations pertaining to mining, favor serving the business interests before the environment and the local community. This results in severe encroachment upon community rights and leads to long-term conflicts between mining companies and local communities, and has weakened the capacity of local authorities to help the affected community to recover their rights.

Keywords: risk distribution; Mulawarman village; coal mining; environmental justice; Indonesia

1. Introduction

The discussion on excessive coal mining and economic growth has been a focus of environmental and development discourses in Indonesia [1]. One of the important issue here is environmental justice relating to environmental degradation and the limits placed on public access to natural resources. Many social conflicts and other externalities arise closely related to the stakeholders and their conscious effort to maintain their interests [2]. The term 'environmental justice' (EJ) refers to any responses that may be needed to deal with the unequal distribution of environmental and social impacts amongst communities [3,4]. It consists of how to define the problems and strategies, including how to tackle environmental issues (e.g., contamination, emissions, and environmental risks) from a legal and political perspective [5]. Here, the distribution of environmental quality was at the core of EJ [6]. Walker and Bullard [7] defined EJ as "the unequal distribution of social and environmental costs between different social groups according to distinctions of race/ethnicity, social class, gender, age and location". A different definition proposed by Lloyd-Smith and Bell [8]. They consider EJ as "the distribution and impacts of environmental problems, as well as the policy responses to address them". Rechtschaffen et al. [9] also considered EJ related to distributive justice, though, in the view of environmental law, distributive justice does not mean directing attention to redistributing pollution or risk. Many of EJ advocates consider that

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distributive justice covers the idea of equal protection where it can be achieved by lowering the risks but not by shifting or equalizing the existing risks. Therefore, any state decisions that try to ignore the fallacies of companies to preserve and protect the environment may be considered as supporting environmental injustice.

One of the examples of an environmental injustice issue is coal mining activities in East Kalimantan. Between 1999 and 2014, the number of coal mining permits in East Kalimantan Province reached 1,333. The mining areas covered of 5.2 million ha scattered across the districts of Kutai Kartanegara, Paser, Berau, Kutai Barat, Mahulu, Kutai Timur, Penajam Paser Utara, and Samarinda. Historically, East Kalimantan has the largest coal reserves in Indonesia. Coal has always been considered as an important commodity since at least 1861, and during the Dutch colonial era in 1927, the production reached 808,078 tons [10]. Nowadays, the recent annual coal production in East Kalimantan is about 200 million tons per year, which is almost half the national coal production's target of 461 million tons in 2017. Though coal mining has become and remains the main economic support for East Kalimantan; it has significant consequences for the environment and local communities. The negative impacts impose unfair burdens on the environment and disadvantaged local communities in ways that are clearly an environmental injustice issue [11]. In this case, the aims to have a sustainable business model (e.g., in mining) seems to be failed because of lack of coordination among stakeholders, who involved in production to consumption process [12]. On the other hand, the public and local stakeholders involvement are essential for bringing about sustainable resource management [13].

Mulawarman village presents an example of how an environmental injustice practice in coal mining occurs. The existing regulations fail to prevent coal mining interest and activities to take over the agricultural lands and residential settlements. Further, the Law, which on a priori grounds should maintain a balance between investment interests and environmental protection, is evidently unfair. It has become more dominant as a tool to facilitate mining business interests, rather than an instrument to protect community rights to the environment and their access to natural resources. Additionally, local governments as permit issuers neglect any form of social cost to the decreased of quality of life [14], nor do they undertake any risk analysis in operating the licensing system [15]. Equally, these decision-makers do not live up to their responsibility under any legal norm principles or are seen to act in the interests of "the protection of the citizen against excessive or unfair government power, including protecting people against excessive or unfair private power" [16]. To address the issue of EJ, and expose how mining regulations lead to the unequal treatment in a vulnerable community, this paper aims a twofold purpose. First, to identify the environmental risks posed by coal mining activities in Mulawarman Village and how the community responds to the environmental injustice. Second, to examine how the prevailing law contributes to environmental injustices in the coal-mining activities.

2. Materials and Methods

This study adopted a two-step approach and was conducted from 17 September 2017 until 25 June 2019 in Mulawarman village, Kutai Kartanegara. The first approach is a qualitative comparative analysis of the coal mining legislation as identified by the Indonesian laws. The comparative analysis here allows to identify the context in a different setting which corresponds to the contextual environment [17,18]. The second is a case study to understand the problems related to the legislation and practices of coal mining in Mulawarman village. A case study appears to be reliable to address and investigate the contemporary phenomenon, and well suited for an exploratory research [19]. The first and foremost of the case study is the use of a small number of unit sample [20]. The interdisciplinary process used in this study is common to any socio-legal studies [21, 22]. Here, the study explored the substance of the legislation using a legal doctrinal approach and determined whether the rule of the law-making procedure can be implemented. Though non-doctrinal methods sometimes are confounded with the doctrinals, however in comparative analysis, there is a clear

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incursion within [23]. The doctrinal (normative) analysis was used alongside non-doctrinal (empirical) research.

The data for this study was obtained using three different research strategies: (1) secondary data collection, (2) in-depth interviews, and (3) (participatory) observations. The secondary data was collected by the identification, inventory, and analysis of authoritative legal texts around coal mining that consist of legislation and administrative rules. The legislation and administrative rules were gathered at the provincial, district, and sub-district level. In-depth interviews were used to obtain detailed information about the differentiated perspectives and behaviors of the local community and to explore new and complex issues in more depth and breadth. The in-depth interviews of purposively selected six respondents were conducted to collect primary data. The respondents varied from farmers, to head of the village, to a negotiator with the mining company in areas where they had lived since 1982. In addition, the interviews were also used to provide context to the secondary data. It offers a more detail picture of what happened in the different levels, specifically at the local level [24,25]. Finally, (participant) observation was applied to crosscheck the secondary data by focusing on non-verbal expressions or feelings, actual interactions in the sense of communication and exchange of goods and products, and actual practices [26]. In other words, this was to check how the authoritative legal texts were translated into actual words, definitions, and practices at the local level.

3. Results and Analysis

3.1. Environmental Risk Distribution in Mulawarman Village

The Mulawarman village has a size of ± 18,008 ha. Its lowest terrain is suitable for farming and found around the Separi Kanan River and Separi Kiri River, about ± 20 meters above sea level. the highest point is located on the peak of Mount Separi reaching 192 meters above sea level in the hilly area. Only ± 2.380 ha (13%) is made up of non-forested areas, while the remaining ± 15.628 ha (87%) is forestry areas. Mulawarman village became one of the tens of villages designated as transmigration areas in 1981. During its early establishment, 263 families, originally from East Java, Central Java, and West Java provinces, inhabited the village, occupied about 526 ha in total. Each family took advantage of two hectares of land allocated by the state for farming rice and more. Farming was and is the main livelihood of the people in Mulawarman village, and this is considered as successful. Rice contributed five tons of output per hectare on average until, in 1997, the Mulawarman village was officially declared as a breadbasket by the district government of Kutai Kertanegara [27]. However, since then, rice production has gradually deteriorated as rice fields were converted into coal mining areas through a series of permits issued by the local government. Both national government and local government of Kutai Kertanegara have issued a number of mining concessions, including in Mulawarman village. Mulyono, the head of Mulawarman village affirmed that in the present total habitable area of Mulawarman village only 85 ha of 2,000 ha (for settlement) is now left because the villagers have sold most lands to mining companies. As a result, now only 6 ha of farming land remain compared to the original 560 ha in the past. Mulyono added the reason behind the massive sales was attributed to soil degradation and loss of its productivity. “It is now hard to plant paddies because of lack of irrigation,”[28].

The Research Board of Kutai Kertanegara report mentions that the whole Mulawarman village of 18.008 ha has been allotted to “IUP”(*Izin Usaha Pertambangan*/mining business permit) coal mining; namely PT. Kayan Putra Utama Coal, PT. Azara Baraindo Energitama, PT. Kemilau Rindang Abadi, PT. Fisi Fernando Sejahtera, PT. Insani Bara Perkasa (“PKP2B”- *Perjanjian Karya Pengusahaan Pertambangan Batubara*/Contract Coal of Work), PT. Mahakam Sumber Jaya (PKP2B), and PT. Santan Batubara (PKP2B). Hence, none of the lands in Mulawarman village is immune to mining activities. The open mining system means that the grounds to be mined have to be cleared transforming their designation from farming to a mining site. Currently, the mining activities get closer and closer to community settlement. In the meantime, most rice fields have been cleared by mining companies.

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The map in Figure 1 shows the companies with concession rights to the community farms and settlement.

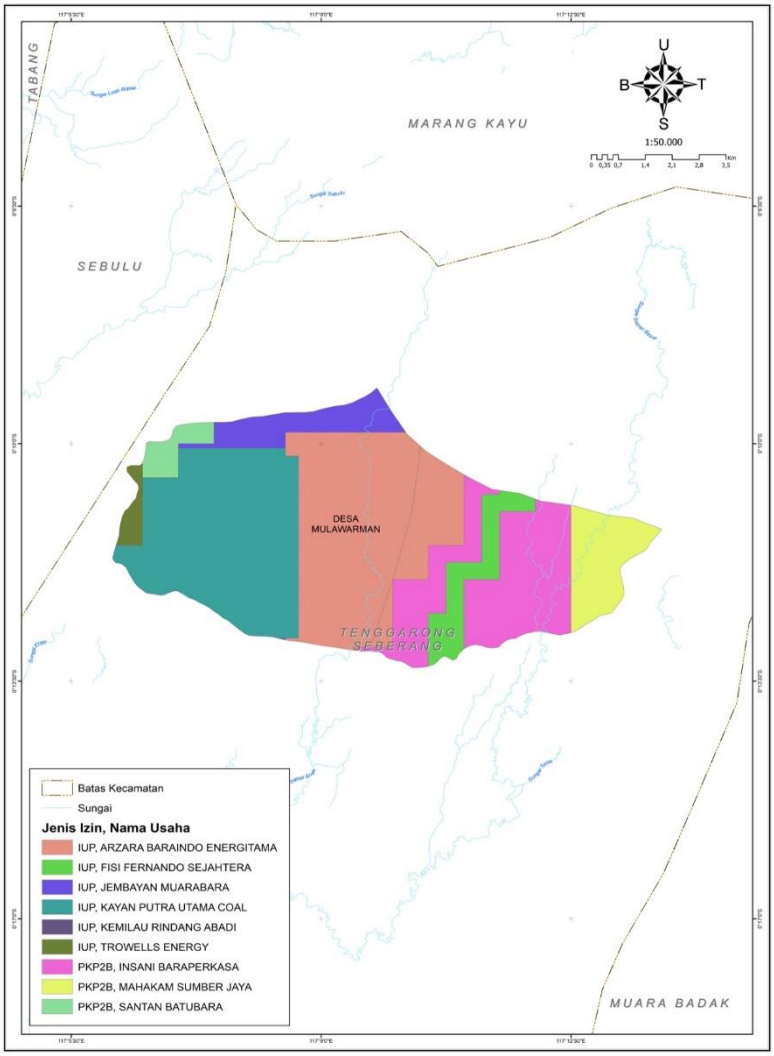

Figure 1. Mining concession in Mulawarman village, Kutai Kertanegara (Bappeda East Kalimantan [29])

3.1.1. The Risk Society

There are different definitions of risk in the literature. It mostly discussed risk is in related to uncertain events which may affect project implementation [30]. Some scholars related risk with probabilities; others defined risk based on the expected values. Even so, there is no amenable interpretation of risk [31]. In this discussion, this study considered the risk defined by Ha ̈ring (2015) as a proportional measure for the probability of an event (frequency, likelihood) and the consequences of an event impact, the effect on objectives). From a legal point of view and in the context of this discussion, risk has two meanings. First, there is the uncertainty of a result or loss happening; the chance of injury, damage, or loss; and especially, the existence and extent of the possibility of harm. Second, there is the liability for injury, damage or loss, if it occurs [32].

Although scientists have the pole position in identifying risks, risks are, in fact, defined socially via discourse between concerned and affected groups. This occurs over a period of time. It starts when citizens state either a concern based on observations, or when a concerned scientist states an opinion. Since these are frequently complex problems that are not fully understood often by anyone, the discussion could take unexpected turns. Important informational issues arise when defining and verifying compliance with risk distribution for (e.g., mining).

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Risk accentuates class differences, where, wealth accumulates at the top and risks at the bottom. Further, poverty attracts a disproportionate share of the risks, while the wealthy can purchase at least a measure of protection from some of them. The poor will also choose to accept additional risk when the choice is between accepting the risk and obtaining resources because their pressing needs suppress their perception of risks. As risk societies develop, so does the antagonism between those afflicted by risks and those who profit from them.

Further, socially-generated risk definitions are never wholly dependent on their scientific rationality. Setting up and verifying any risk distribution will involve transaction costs that need to be estimated and considered. In this regard, amenities are viewed as a positive or a negative unintentional environmental service, generated jointly by mining practices, without specific supplementary costs. Likewise, societies who provide these environmental externalities are not directly remunerated by beneficiaries, who may be either other rural residents or other stakeholders. The types of the externalities considered are all spatially localized and correspond to the attributes of the rural countryside that make it visually and functionally pleasing. This study considers the landscape social and economic externalities, as well as legal dimension and how this form impacts on the social quality of life. The risk assessment considers also the frequency/ probability of events and measures for their consequences [33].

Recently, the use of payment for environmental services (PES) as part of risk assessments has become more in vogue for developed and developing countries due to the growing recognition of the economic value behind the resource services [34]. The environmental services (ES) may vary in their extent where PES is considered to bring more benefits over the traditional conservation approaches and can bridge different interests among vested groups [35]. In this sense, this innovation involves a move away from command-and-control environmental policies to harness market forces to obtain more efficient environmental outcomes [36]. Therefore, to make it work, the communities around the identified risks have to be turned into a risk society. As a risk society, the hazards faced by society fall to everyone, including the many who have no control over the creation of the risks, where the issue of trust and credibility is significant. Industries (e.g., mining) have created risks far beyond those of a feudal society in the past when risks were largely personal or limited to a local community. In modern society, risks now are delocalized and extend to all of society in often incalculable, and non-compensable ways.

3.1.2. Risk Distribution in Mulawarman village

The distribution environments may create different risks in the value chain. To quantify the risk, the measurement needs to distinguish between: (1) the nature of the risks, i.e., drop, shock, compression, temperature, humidity, sun and rain, (ii) impact level, and (iii) the impact time [37]. It is important to note that some of risk distribution are similar to operational risks, which are unpredictable, and may affect in a distribution channel [38]. In every case, mining operations may bring different types of critical risks, e.g., access to water for irrigation, noise pollution, the depletion of agricultural productivity due to land-use change and contamination of water used for irrigation. Though all the company activities depend on the ecosystem services; they do not give enough concerns to understands the conflicts and the risks [39].

In the case of Mulawarman villagers, the loss of food production has become the main problem that makes them fail to maintain food self-sufficiency. As a result, the villagers have lost their independence and turned to the government en masse in order to qualify for social welfare, not to mention their dependence upon the existing companies for clean water. Here, each family head can secure up to 1.200 liters per "RT" (*Rukun Tetangga*/neighbourhood)/day or equivalent to 20 liters of clean water per day. In the past five years, the villagers have inflicted respiratory diseases, as well as diarrhea, caused by coal mine dust released by coal mining companies operating right behind their backyard twenty-four-seven [40]. The villagers also find that mining activities and facilities quite a disturbance during the night. This happens most especially when there is blasting through explosions during coal exploration. Fears of landslide further complicated this activity [41]. In addition, muds

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from mining activities have often damaged the fish farms that the villagers have [42]. Sooner or later, the villagers living in the vicinity of the mining sites have had to give up their homes and sell them to mining companies. It is to nobody's surprise that no sooner had such lands fallen into their hands, then the companies knocked down the houses and turned them into mining sites. Villagers also have to face the risk of infrastructure scarcity provided by the government, given the uncertainty of their settlement. Meanwhile, other infrastructures, such as roads, have been damaged and gone from worse to worse as coal mining truck traffic that should have been redirected to another route, in fact, use these same public roads.

3.1.3. Mulawarman Community Response to mining operations

Arguably, a key issue in ensuring an appropriate provision of public goods is determining how much people value them. Because a large number of people enjoy the benefits of public goods, and this enjoyment is non-rival, individuals do not have sufficient incentive to reveal their willingness to pay for them. Individuals have an incentive to be ''free-riders'' and let others pay to provide the public good since everyone benefits from them, whether they help pay for them or not. The free-rider problem is one reason why governments often use taxes or user fees to pay for the provision of public goods. In the context of ecosystem services, governments can use tax revenues to pay landowners to manage their land in ways that could protect the provision of those services [43].

Obviously, tension exists in the relationship between authorities, permit users and the people that can result in conflict. Basically, such conflict arises when people experience injustice in their relationship with both mining companies and the authorities. Villagers tend to think that coal mining activities bring malice and environmental injustice to them, rather than bringing the prosperity they used to dream of. In other words, coal-mining activities do people more harm than good. Mulawarman villagers are still struggling after fighting for five years, while their pleas for justice seem to fall on deaf ears. Evidently, mining activities still persist despite various efforts via the legislature and political pressure to try and resolve the conflicts.

It is worth mentioning that the local government of Kutai Kertanegara, the members of Kutai Kertanegara House of Representatives, the members of East Kalimantan Province House of Representatives, the delegates from the relevant ministry office in Jakarta, as well as the governor himself, have made visitations to the endangered village to see and witness how bad the mining had been for the environment. These distinguished people even made promises to take care of the problem, but to no avail [44]. The latest negotiation effort took place between the villagers and the concerned party (a company named PT. KPUC) on February 26, 2019, and March 11, 2019, but these efforts were again fruitless [45]. The company leaned on the fact that most of the villagers have been received compensation of Rp. 300,000 (equivalent to € 19.35 each month since 2012), while the villagers did not realize what the consequences of such payment are [46].

Local NGOs have also taken part in escorting and providing legal assistance to the villagers, including bringing the case to the Human Rights Commission; an action that ended nowhere. The community efforts to fight for their rights also backfired when a law enforcement agency (the police) perceived their actions as being in violation of law stated in Chapter 156, Law No 4 of 2009, regarding Minerals and Coal Mining. In this respect, the local government at the district level was powerless, as the authority responsible for coal mining had been accorded to the provincial government; this according to Chapter 14 verse (2) of Law No 23 of 2014 regarding local government [47]. The presence of various parties from the government does not necessarily appease everyone, as the solution-finding measures since the very beginning have been based on an unbalanced negotiation approach. Negotiation practices that neglect the public interest are obviously dangerous in environmental law because it denies the justice principle and fair social treatment. The risks that befell Mulawarman villagers, and their ongoing struggle for justice, presents an example of how the state can neglect community interest and the environment in the context of coal mining operations.

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3.2. The weaknesses of the legal system

In essence, licensing in natural resource management aims to ensure the safety of all public interests from those who entitled to the permits to manage the resources. However, the practices in the field have failed to meet the expectations. Coal mining activity is evidently unable to ward off both the marginalization of the nearby community and the environmental degradation. It is evidence that the licensing system of coal mining in Indonesia has played a key role in triggering environmental injustice. The coal mining licensing service has received special treatment when compared to other natural resources operations, such as forestry, plantations, or fisheries. The state is bound to issue permits for coal mining, despite the fact that the lands belong to the villagers, as has occurred in Mulawarman village. Arable areas, as well as community settlement, come as secondary concerns to the interests of mineral and coal mining. Also, a variety of laws do not disapprove coal-mining operations, including Law No 41 of 1999 regarding Forestry, Law No 39 of 2014 regarding Plantation, and Law No 29 of 2009 regarding Transmigration. Law No 4 of 2009 regarding Minerals and Coal Mining does not repudiate that all Indonesian territory can be mining areas. This means that where and when coal is found within community settlements, it is absolutely legal for mining companies to apply for permit to manage the area.

In addition, coal mining permit guarantee the right of coal mining companies to survey any potential areas though, they are already licensed for plantation, forestry or settlement. The licensing system has changed the licenser (the state) and the licensed relationship into private style of license issuer and license holder relationship. As a consequence, forest areas that have been strictly regulated have to be given up for coal mining purposes. In fact, the regulation (Minister of Environment and Forestry Regulation No. P.50/Menlhk/Kum.1/6/2016 on Forestry Permit Guidelines) allows mining permit applicants to utilize forest areas through the "IPPKH"(*Izin Pinjam Pakai Kawasan Hutan*/ Borrow-to-Use Forestry Permit) scheme, or a leasing permit for a forestry area. In this case, the previous owners of the lands are also very likely to live with much anxiety thinking of the possibility that their lands can be confiscated for coal mining at any time. This kind of land transfer from agriculture to mining sometimes follows a legal path. However, no less frequently the land is converted to mining site through non-legal mechanisms, without even having to acknowledge the concerned individuals. Such practices sound ridiculous from a legal perspective, given the uncertainty surrounding the legal status of a leasing object. Here, the leasing object normally is the primary forest, which post-mining will turn into mining pits (void) that cannot sustain the original forest functions [48].

Mining companies went further in penetrating community-owned farmlands by taking over their ownership. The parties that accepted the admission to issue mining permits never really run any background checks, except for paper reports that the permit applicants presented. This ignited tenurial conflict as a result, as people's lands suddenly became a negotiation object and source of conflicts should villagers ever disagree to let go of their lands. If the latter situation occurred, the landowners would always be at a disadvantage as was proven in Mulawarman village. The direct risks include noise pollution, water quality degradation, damaged farming sites, degrading value of lands (due to damaged lands that surround the lands in conflict), and the loss of community access to public infrastructure built by the government. When considering the impact of coal mining management operations on land and forest, it is not hard to imagine how serious the environmental risk distribution potential is that takes place in coal mining licensing system in Indonesia. The coal mining regulatory system fails to consider the environmental risk. Law No. 4/ 2009 regarding Mineral and Coal Mining does not sufficiently mention of how to protect the environment around the mining areas. It seems that it does not clearly accommodate environmental sustainability (e.g., in responding to the risks during coal exploitation and post-mining). The only legal umbrella to coal mining area is state regulation No 27/2017 on Environmental Permit which gives concerns to environmental biodiversity; a law that has yet to be seriously implemented.

By comparison, the United States specifically regulates what is termed as reclamation activity for open mining as stated in Surface Mining and Control Reclamation Act of 1977 (SMCR). In sec. 102

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(a) it states, *"It is the purpose of this Act to establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations"*. It implies that the negative effects mentioned in the US regulation of coal mining activity- also known as Statement of Findings and Policy, seems to be missing in Indonesian law. Despite the fact that mining activity has been going on since the Dutch colonial era, the regulations concerning mining reclamation first came out only in 2008; Ministerial Degree (The Ministry of Energy and Mineral Resources) No 18/2008 on Reclamation and Mine Closure. Though other regulations such as Law No 4/2009 regarding Mineral and Coal Mining, Government Regulation No 78/2010 and Ministerial Degree (The Ministry of Energy and Mineral Resources) No 7/2014 outlines the aspects of mining, there is a very limited portion given over to environmental repair and reclamation. The regulations concerning a reclamation, in fact, address no details of any bio-components damaged by mining activity. In addition, social issues that may arise also have been ignored on an apparent assumption that these issues can be dealt with post-mining. In short, the regulations again fail to acknowledge that post-mining success is very much dependent upon the success of the execution of during and before the production stage.

The environmental permits were initially enacted as a legal tool to mitigate the risks related to natural resource management. The regulations also state that to enable sustainable development, the natural resource should be managed in a way that is economically viable, socially acceptable and environmentally sound. Further, in 2012, the Minister of Environment issued an implementing regulation (no. 4 of 2012 on Eco-Friendly Indicators for Open-pit Mining Operations or Activities), which prohibiting mining within 500 meters of residents' settlements. However, in East Kalimantan, this provision has not been legally enforced and has been violated by mining companies. This indicates that the legal system covering licensing has yet to pay attention to or deal with environmental and societal risks. Also, any multiplier effects which result from mining operations, should not deprive villagers of their rights or deny their very existence at first place. Unfortunately, the impacts that should not have happened has been the reality that has haunted the villagers in the vicinity of the mining site: poverty, toxic waste in the river, polluted drinking water, and road damage, amongst others adverse outcomes.

In term of social acceptability, initially coal mining brought great benefits to the people, especially during the period when permits boomed in 1999. With the passage of time, it has created tension in society due to the destruction that it has caused, particularly because of the risk distribution issue and the miners' reluctance to abide by the law. It is inferred that the environmental analysis or prior informed consent to local inhabitants has been severely violated, whereas, the environmental aspects are supposed to be the main concern in any decisions concerning coal-mining investment [49], considering its high risk to the environment and local people's wellbeing. However, the risk distribution practices of mining show just the contrary. People's concern has been raised as to whether the Environmental Impact Assessment, known as AMDAL, has not been properly issued. Especially after 136 plantation companies in Kutai Kertanegara were convicted of bribery in acquiring their Permits[1]. Poor environmental condition at mining sites has also prompted people to think that there has been something wrong in the process of AMDAL that the mining companies use. This issue has raised especially after people that were affected by the adverse consequences of mining activity have been denied access to the truth. Thus, excluding the concerned community in the preparation of AMDAL, is a violation of the transparency principle in the public decision-making process and has resulted in a myriad of problems for society. This contemptible licensing practice of coal mining operations has forced the authorities to revoke 809 mining licenses out of a total of 1,333 licenses issued earlier in East Kalimantan Province, but these exclude those of companies that operate in Mulawarman Village. Such licenses were revoked because the companies did not have the appropriate environmental documents and provided no reclamation fund. However, the repeal of the licenses, unfortunately, has left the immediate mining pits unattended, which also means that the

[1] Corruption Court Decision, 6 July 2018 that sentenced The Head of Kutai Kertanegara District of 10 years of imprisonment and 600 million rupiah fine due to a violation of Chapter l 12B UU No 31/ 1999 as amended by Law No 20 of 2001 regarding Eradication of Criminal Acts of Corruption.

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perpetrators got away scot-free. One of the focal problems is the unreclaimed coal mining areas that negatively impact the local environment and community, and becomes the main cause of risk distribution. On the hand, the reclamation funds that companies left in state-owned banks (a prerequisite to acquire the mining permit), have been already refunded on the assumption that the companies had satisfied the reclamation requirement, for example, to deliver success in the reforestation of the coal mining area.

No sooner had the East Kalimantan government terminated 809 questionable permits, the environmental risk potential followed. Both local and central governments lack in legal responsibility scheme, for instance, the consequences for the ex-permit holders in the case that they fail to reclaim the mining pits. Another problem that also often arises is that the reclamation fund falls short of restoring the environmental degradation from the mining activities. As a result, the government fund has now to be used to cover up the crime committed by mining companies, otherwise, they have a responsibility to allow the environmental risk happening. Therefore, the abandoned mining sites will eventually become a burden on the government and squeeze the fund that was initially set aside to finance other public needs. It is clear that the authority shift with regard to the licensing is evidently causing harm rather than benefit for the people living in and around the coal mining area. Legal action has also failed to cope with the situation, which proves that the state has failed in its management of natural resources.

Correspondingly, the production of the Decree of Ministry of Energy and Mineral Resources (MEMR) regarding "Clean and Clear" (CnC) certification program which applies to any mining companies operating in Indonesia, further shows that the state has lost its power in dealing with mining companies. Just recently, the decree laid out some criteria to qualify the operation of mining companies, which should have been set a long time ago. Even so, the reasons behind to meet the criteria are not because of the government, but it is more to business as usual. Meeting the requirement is necessity to secure their position among stakeholders, e.g., to get funding approval from the banks. The banking sector has some fear of environmental risk and issues, which may damage the trust of international coal buyers. The Minister Decree states that IUP holders are entitled to a certificate, on the condition if they can satisfy the requirements. The requirements consist of the administrative part (the establishment conditions), territorial aspect (to avoid the overlapping of licensed areas), environmental issue (e.g., environmental permit, environmental impact assessment), technical aspect (in terms of exploration and exploitation reports), and financial assessment (e.g., permanent cost settlement, royalty, reclamation guarantee, non-tax revenue/"PNBP" *(Penerimaan Negara Bukan Pajak)*). A company lacking a CnC certificate is sanctioned in the form of a warning letter, temporary termination of operation, or the repealing of their mining business permit.

However, the existence of the CnC, by definition is rather confusing. It functions to regulate a permit, which previously had been cleared for approval. Apparently, it is self-evident that the IUP licensing practice, had not paid serious attention to the requirements articulated in CnC (e.g., environmental aspect). What is more, the certificate itself will never be able to restore the environmental damaged and polluted areas as a result of haphazard IUP issuance procedure. In brief, the CnC policy seems to have ignored comprehensive environmental conditions from the very beginning. The CnC certificate issuance mechanism has depended largely on document assessment prepared by the company, which may not have proper ground checks in the process. From the view of legal perspective, this policy approach is quite uncommon, as the state accords full recognition of the verification process to mining companies. This is akin to the situation where the state handing over an "amnesty" to those who have destroyed and degrade the environments and allows them room to cover up misdoing committed by the government in the procedure issuance of the previous permits.

Accordingly, this finding also shows that coal-mining governance in Indonesia is legally and institutionally complex. It involved multiple bodies of law and government agencies related to land, forests, spatial planning, and environmental management. These situations do lead to legal uncertainty, not only for the coal mining companies but for the community as well. The existing condition indicates that the coal mining licensing system lacks sufficient mechanisms to predict

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environmental and societal risks. In other words, the failure to prevent coal mining risk distribution affirms that the legal licensing system of coal mining has yet to accommodate the safety of both people and their environment.

4. Discussion

The Indonesian constitution firmly stated that the state has to protect the whole nation and homeland and to utilize natural resources for the well-being of the people. The whole homeland implies a guarantee to all citizens for legal protection. This covers the protection of individuals in their access to natural resources, as well as providing for a safe and healthy environment. In fact, Indonesia constitutes one of only a few countries in the world that incorporate environmental protection and entitlement into their constitutions. The foremost reason for this incorporation is to protect all people and their entitlements to certain rights regarding their relationships with the biodiversity environment [50]. The constitutional text also confirms that the political law of state-citizen relationships and natural resource users is based on environmental protection and economic advantage. Thus, the state has the responsibility to provide a legal instrument to respect, to protect, and to fulfil these rights. The state must create and implement a law that clearly establishes the limits and the government's responsibilities, the limits, duties and individual's rights, and also the mechanisms to protect guarantee a remedy in case of a violation [51]. In the context of human rights, a commission can declare a violation to a state. For instance, where there is insufficient regulation, or omission (i.e., state failure to fulfil its responsibilities to protect the rights from non-state actor's actions).

However, in the case of Mulawarman villagers, environmental protection and benefits are not likely to be realized. This situation reaffirms a growing public assumption that people living in the vicinity of an extractive mining site, tend to experience abject poverty. Unless political intervention and third party advocacy take place in mediating the overlapping interests among the residents (victims), the business, and the government [52], those people will not gain access to public decisions related with their livelihoods [53]. In essence, though, the law is designed to protect both individual and collective rights [54], in reality, it is prevalent that the law is unable to give its protection, particularly in cases where the individuals or community rights stand in opposition to investors' interests. Coal mining operations and their management have self-evidently denied the individual rights of survival. State efforts to save farmlands and community interests and, particularly, to ensure that mining interests return and reinstate them to their previous state, have always ended in dead ends. This is in contradiction to a popular belief that the law is an instrument to mediate economic endeavors in related to the sustainable management of natural resources. This particularly concerns the definition of emissions and pollution restrictions [55] and, in the meantime, the law should not burden public externalities cost.

In Mulawarman village, the evidence indicates that coal-mining operations have been exploitative in nature and lead to environmental degradation. Unfortunately, the institutions involved in the licensing chains, either at the central or lower levels tend to side with the investors in any cases where legal conflict arises [56]. Such exploitative regulations, which abandon the environment and the people living with and from the environment, are positively correlated with the negative impacts that occur almost daily. The regulations have deserted the principles of sustainability, fair access of natural resources, the destruction of clean water reservoirs, and have driven farming as the principal means of survival of the people to the edge of extinction [57]. In the perspective of law, though coal-mining companies have the rights to mine, they expose an inequality in the social justice system.

As Aristotle once said, "when [man] is separated from law and justice, he is the worst of all animals" [58], which refers that human survival depends on natural sustainability (prudential and instrument arguments) [59]. Therefore, it is equally true that environmental justice mandates the right to ethical, balanced and responsible use of land and renewable resources in the interest of a sustainable planet for humans and other living things [60]. Issues of moral risks, in general, have

become more and more important over the last decades. First, growing awareness among citizens of social or ecological problems is well represented by the emergence of the recent extinction rebellion, the green movement, the antinuclear movement, or various antiwar movements has given more weight to ethical concerns in business. Second (and closely related), different corporate scandals have proved that ethical risks can turn into economic risks in an instant [61]. Exploitative and destructive natural resource management is ethically wrong and logically unacceptable. The moral standard demands us to not over-consume environmental resources, that is, not to consume them at a rate higher than their recovery rate [62] and not to exploit excessively [63,64]. Therefore, policymakers should consider questions such as "how safe is safe enough?", "How clean is clean enough?". These questions are so value-laden that it is unsurprising that environmental law and policy are deeply contested areas [65]. Therefore, ethical risks make risk management necessary. What is often ignored is the fact that not taking risks can be an ethical risk, too. True, in terms of classical risks, most are aware of the rule of thumb according to which any action is better than no action.

Similarly, the economic aspects of coal mining operation are complicated, as the regulations that license these operations have also become the source of a series of restrictions [66]. International markets are notoriously reluctant to accept timber, fishery, and palm oil from Indonesia, but react differently in the case of coal as a commodity, which is welcomed without little question. Such practice indicates that importing countries are likely becoming an indirect proponent in the destructive environmental practices that take place in Indonesia. The state seems powerlessness and shows its incompetence to guarantee sustainability. In the long run, this will bring to two serious implications: firstly, by ignoring the ongoing environmental destruction, the state will have to pay a high cost in the future by ignoring the externalities now and previously. The state has to finance farming lands, clean water resources, soil vegetation, public infrastructure repairs, and other socio-economic costs. Secondly, the state has failed to meet their constitutional responsibility to manage the country by allowing damaging environmental endeavors that threaten its citizens, as the Mulawarman village case shows.

Further, the silence of the state to those who continuously violate the environmental regulations is a clear case of state negligence and should be regarded as an injustice. The implications are that it diminishes state power and undermines its ability to manage and carry out its environmental function sustainably. Such absurd licensing practices and state reluctance to bring the perpetrators to the court can also mean that the state has effectively entrusted environmental protection responsibility to the coal mining businesses. This is a high-risk move because businesses, including coal-mining companies, have always been profit-oriented with little incentive to be socially or environmentally responsible.

5. Conclusions

From a risk distribution perspective, it can be concluded that the existing environmental laws have not and not being successful to provide the protection to all, as the nature of the regulations solely tend to lead to conflicts. The lack of state responsibility in public and environmental protection signifies the problems in the level of state protection, which result coal mining to have more concern to economics (i.e., profit) over public and environmental concerns. What happened in Mulawarman village, are similar to the classic case of ''tragedy of the commons'' outcome. The prevailing licensing system was not designed to anticipate risk distribution and the negative effects of coal mining activities to the surrounding community and the environment.

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