



Policy Conflicts Regarding Natural Resource Extraction and Climate Change

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Abstract- This article summarizes East Kalimantan Province's climate change policy. Two traits of this province conflict. East Kalimantan has the largest natural resource extraction income and is a national climate change mitigation pilot project. This makes balancing regional economic and ecological interests difficult. Can these two aspects coexist, or is one sacrificed? This is evident in regional development plan documents and programs, including priority scales. The results suggest that East Kalimantan's dependence on natural resource extraction is harmful to climate change policy. As shown in the East Kalimantan Provincial Mid-Term Development Plan, the mining sector is crucial to the regional economy's growth, with all districts and cities in the province having GRDP values higher than the national average.

Keywords- Climate Change; Extraction; Natural Resources.

I. INTRODUCTION

Climate change is a vital global issue that is being confronted by nations worldwide. The increase in the Earth's surface temperature induces modifications in several climate factors, such as heightened atmospheric evaporation, altered precipitation distribution, elevated sea temperatures, and changes in air pressure. Consequently, these adjustments exert an influence on global climate patterns. The fundamental driver of climate change is attributed to the emission of greenhouse gases from diverse industries, such as industry and energy. Nations across the globe have made commitments to tackle the issue of climate change through the reduction of emissions, adoption of clean energy technologies, establishment of novel renewable energy resources, and fostering cooperation between developed and developing countries.[1] The attainment of this commitment was accomplished through a global summit that established the United Nations Framework Convention on Climate Change. Annually, the United Nations Framework Convention on Climate Change (UNFCCC) convenes a meeting known as the meeting of Parties (COP). This gathering serves as a platform for members to negotiate and establish agreements aimed at both adapting to and mitigating the impacts of climate change. The COP has witnessed significant milestones, like the emergence of the Kyoto Protocol and the subsequent adoption of the Paris Agreement. The primary objective of these agreements is to address the issue of climate change, encompassing Indonesia's endeavors to mitigate its impact.[2]

Indonesia is steadfastly dedicated to actively participating in endeavors to mitigate climate change. At the global scale, the fulfillment of this commitment is achieved through the process of ratifying international agreements, such as the United Nations Framework Convention on Climate Change (UNFCCC) via Law Number 6 of 1994, the Kyoto Protocol via Law Number 17 of 2004, and the Paris Agreement via Law Number 16 of 2016, all under the auspices of the UNFCCC. This rule encompasses a variety of climate change adaptation and mitigation programs, including those administered by institutions falling within the ministry's purview. Indonesia's aggressive endeavors to address the challenges of global climate change are firmly grounded in national and local environmental regulations. These endeavors have the potential to address environmental concerns, particularly the problem of deforestation. In 2021,

the Ministry of Environment and Forestry issued a statement revealing a significant decrease in deforestation, specifically a reduction of 75.03%. This reduction is evidenced by a decline in deforested land area from 464.46 hectares during 2018-2019 to 115.46 hectares during 2019-2020. [3]

Regrettably, notwithstanding these endeavors, the impact on environmental restoration was not substantial. WALHI has articulated apprehension on the need for Indonesia's climate strategy to exhibit greater comprehensiveness and ambition. According to data from 2020, it was observed that the climate crisis would have an impact on various vulnerable regions, such as Pari Island in the Thousand Islands, the Nambangan and Cumpat coasts of Surabaya, the East Sumba coast of NTT, and two islands in Banyuasin Regency, South Sumatra, which are experiencing a subsidence of 1 and 3 meters below sea level.[4]

Despite being claimed to have declined by the government, the extent of deforestation needs more empirical verification. According to the data provided by Forest Watch Indonesia, the annual rate of deforestation between the years 2013 and 2017 amounted to 1.47 million hectares. The observed trend has exhibited a decline since the year 2017. However, this decline might be attributed to the loss of forest resources, namely in the regions of Sumatra and Java, rather than any substantial progress or amelioration. Nevertheless, the regions characterized by substantial forest coverage, such as Kalimantan, Sulawesi, Maluku, and Papua, have experienced a notable expansion in their forested areas.[5] According to a report by Greenpeace Indonesia, the extent of deforestation experienced a notable increase, reaching approximately 4.8 million hectares during the period spanning from 2011 to 2019. The primary driver of deforestation is the clearance of forests to establish plantations and mining operations. Kalimantan Island is accountable for the most substantial deforestation in Indonesia, as it accounts for 36.6% of the total forest loss in the country.[6]

The present scenario is of significance due to the continued reliance of East Kalimantan on the extraction of natural resources. According to data provided by the Central Bureau of Statistics in 2020, the total coal production in East Kalimantan amounted to 187.8 million tonnes.[7] The total coal production comprised 114.3 million tonnes from businesses having Coal Mining Concession Work Agreements (PKP2B) and 73.5 million tonnes from those with individual mining permits (IUP). It is essential to acknowledge that the numbers above pertain exclusively to 2020 and do not incorporate the projected rise in production expected in 2022. The East Kalimantan region has an evident reliance on the extraction of natural resources, as evidenced by the substantial revenues allocated through revenue-sharing mechanisms derived from the gas, oil, and coal mining industries. The economic significance of this phenomenon is accompanied by a growing vulnerability to climate change arising from mining operations, extending beyond solely extreme weather events. The inhabitants residing in various places within the East Kalimantan Province have encountered the repercussions resulting from the occurrence of severe weather phenomena. Based on data collected by the Balikpapan Meteorological and Climatological Agency, an average annual temperature increase of 0.043 degrees Celsius has been observed for the last three decades.[8]

This scenario is expected to result in a decrease in precipitation levels during the dry season and an increase in precipitation levels during the rainy season. Consequently, there will be an escalation in the prospective hazards of drought, land fires, and restricted availability of potable water in the forthcoming dry seasons. The quantification of financial losses resulting from the effects of climate change is feasible. The region of East Kalimantan exhibits a discrepancy between its efforts to mitigate climate change and protect ecological value and its continued reliance on natural resource exploitation, which plays a substantial role in its economic prosperity. The issue of climate change mitigation gives rise to a contradiction between economic and ecological objectives, necessitating the implementation of legal measures to address this matter effectively. This essay aims to address how the legal certainty of climate change policies, which are contingent upon the economic worth of extracting natural resources, can be ensured.

II. RESULT AND DISCUSSION

The local level of East Kalimantan Province has established climate change regulations by issuing Regional Regulation Number 7 of 2019, which focuses on Climate Change Adaptation and Mitigation. The subject of discussion is the province of East Kalimantan. The issuance of East Kalimantan Governor's Regulation Number 7 of 2023, which pertains to the adjustments made to Governor's Regulation Number 33 of 2021 regarding the Benefit Sharing Mechanisms in the Land-Based Greenhouse Gas Emission Reduction Programme, has occurred at the technical level. Furthermore, the development of the East Kalimantan Province Regional Medium Term Development Plan (RPJMD) incorporated a strategy aimed at tackling climate change through the implementation of a Strategic Environmental Assessment (KLHS).[9]

The implementation of the East Kalimantan Governor Regulation No. 7 of 2023 signifies a tangible measure undertaken by the regional administration to tackle the issue of climate change. The aforementioned rule asserts the significance of initiatives aimed at reducing greenhouse gas emissions originating from land-based activities, while concurrently establishing a structure that ensures equitable and transparent distribution of benefits. The primary objective of this rule implemented by the East Kalimantan government is to facilitate and encourage the active involvement of communities, the private sector, and other pertinent stakeholders in initiatives aimed at mitigating greenhouse gas (GHG) emissions. It is imperative to approach the examination of climate change policies implemented by the East Kalimantan government within the broader framework of policies pertaining to natural resource and environmental management. East Kalimantan is endowed with abundant natural resources across multiple sectors, encompassing forestry, mining, plantation, coastal, and marine domains. The government harnesses this potential in order to generate economic value and allocate resources for the betterment of the community.[10]

The natural resource extraction process in East Kalimantan includes the extraction and utilization of diverse natural resources. The province possesses a variety of natural resource deposits, encompassing coal, oil, and natural gas, as well as mineral and forest resources. Various commodities are utilized in different sectors to bolster regional economic stability. For instance, coal mining plays a crucial role in supporting financial activities at the local level. Similarly, the extraction of oil and gas is a significant driver for the energy industry and the overall national economy.[11]

Additionally, the extraction of mineral resources and water plays a vital role in meeting industrial, agricultural, and domestic demands. However, it is imperative to implement prudent regulations to ensure the preservation of ecological equilibrium and the availability of water resources. Within the mining realm, the geographical region dedicated to coal extraction in East Kalimantan Province spans a vast expanse of around 13.83 million hectares. The present region possesses greater significance compared to the land area of East Kalimantan, which is limited to 12.70 million hectares and exhibits an average coal production of 187.8 million tonnes. The dominance of the mining industry predominantly characterizes the economic structure of East Kalimantan. Hence, the contribution of coal mining to the economic growth rate of East Kalimantan in 2020 amounts to 4.58%. Nevertheless, the environmental repercussions of mining activities cannot be overlooked, as the economic benefits from such endeavors invariably leave behind multiple regions of abandoned coal mine digs. The resolution of reclamation and post-mining duties remains an outstanding issue that requires attention.

When designing climate change policies in East Kalimantan, it is imperative to consider the tension between economic value production and environmental effects. According to the author's research on the Regional Medium-Term Development Plan (RPJMD), East Kalimantan is mainly oriented towards development activities reliant on the mining industry. More data about the transition towards a new economic growth model centered on clean and renewable energy sources is needed. In the year 2020, there was a reduction observed in the levels of gas and carbon emissions in the region of East Kalimantan, resulting in a recorded value of 24.41 million tonnes of carbon dioxide equivalent (Co2eq). The level of achievement observed in the present year was found to be comparatively lower than that of the preceding year, specifically in 2019, wherein the decrease in emissions amounted to 34.65 million tonnes of carbon dioxide equivalent. The endeavor to decrease national emissions continues to encounter the challenge of deforestation, which concurrently impacts community well-being and threatens attaining sustainable development objectives. This is evidenced by the heightened mortality rates among students and the diminished production within the community. In addition to the carbon trading scheme, East Kalimantan has secured financial incentives from the World Bank under the REDD+ program and the Forest Carbon Partnership Facility-Carbon Fund. These funds are intended to support mitigating greenhouse gas emissions from deforestation and forest degradation within 2020-2024.

The provincial government of East Kalimantan has established a goal, as part of the Regional Medium-Term Development Plan (RPJMD), to expand the extent of social forestry by 32,000 hectares annually. The government engages in partnerships with non-governmental organizations (NGOs) to support the Forestry Service and the East Kalimantan Provincial Social Forestry Acceleration Working Group in conducting inventory activities, disseminating information to residents, and facilitating the submission of proposals for community-managed areas within the framework of the Social Forestry Programme. Under the stated objective in the Nationally Determined Contribution (NDC) statement, Indonesia has committed to reduce its greenhouse gas (GHG) emissions by 29% unconditionally and up to 41% with international assistance by the year 2030, under the assumption that there will be no substantial alterations to current practices. Within this theoretical framework, the implementation of emission reduction and development commitments co-occur and in coordination with one another.[12]

The attainment of the unconditional objective necessitates a reduction of 17.2% in greenhouse gas (GHG) emissions within the forestry sector, 11% within the energy sector, 0.32% within the agriculture sector, 0.10% within the industrial sector, and 0.38% within the waste sector. In response to the diminishing environmental quality resulting from the extraction of natural resources, the government intends to undertake an economic transformation by transitioning towards the utilization and development of renewable natural resources. In order to effectively accomplish the aim by 2030, the National Development Strategy (NDC) must be methodically included in regional development plans. This integration is crucial for fostering collaboration among many agencies, including budgeting, thereby facilitating the practical implementation of the NDC at the grassroots level. Hence, a discussion exists over harmonizing economic and environmental concerns within endeavors to mitigate climate change.[13]

Nevertheless, justice, particularly for the environment, remains to be determined once specific legislation is established within the climate change policy framework. In this particular context, the concept of legal certainty necessitates a nuanced equilibrium between economic and environmental principles while also taking into meticulous account the enduring consequences of climate change policies that depend on natural resource extraction. In the interim, it is imperative to reevaluate economic values and ensure their congruence with worldwide environmental objectives and the pursuit of long-term sustainability.[14]

Establishing legal clarity within climate change policy is of utmost importance to effectively accomplish objectives related to mitigation and adaptation. This will effectively resolve the conflict between endeavors to mitigate climate change and the economic necessity to use natural resources. Climate change mitigation and natural resource extraction objectives can present competing interests. The extraction of natural resources has the potential to yield immediate economic advantages. However, it can also result in detrimental environmental consequences and exacerbate the issue of climate change. These cases present a contradiction between economic interests and the preservation of the environment.[15]

Conversely, economies that rely on extractive sectors possess a significant capacity to influence policy formulation. The reliance on extractive sector earnings might provide additional obstacles to implementing climate change legislation, as it may necessitate increased collaboration with economic players. When confronted with conflicts arising from the tension between economic value and environmental protection, it is imperative to adopt sustainable measures that consider long-term interests and examine the total implications. This encompasses innovative cognitive processes to pursue economic diversification, the advancement of ecologically sustainable technologies, and the more prudent utilization of natural resources.[16]

Hence, it is imperative to implement comprehensive policy modifications that acknowledge the intricate interplay between economic and environmental principles. This approach may entail formulating more comprehensive policies that consider the enduring and holistic effects of activities related to the extraction of natural resources. In order to effectively handle the issue of climate change, it is imperative to involve a diverse array of stakeholders, encompassing government entities, businesses, civil society organizations, and environmental experts. This inclusive approach is essential for striking a harmonious equilibrium between economic considerations and safeguarding the environment. The objective will be accomplished by establishing a well-defined and uniform legal structure that incorporates economic and environmental dimensions into climate change policy.

III. CONCLUSION

As a result of the ambiguous wording of the offense and the variety of sanctions, the proof for which is quite tricky, except being captured red-handed, there are several obstacles for law enforcement to surmount. Statistically, preventative and punitive law enforcement operations against forest and land fires and their environmental consequences remain ineffective. This reality is demonstrated by the unequivocal rejection of settlements in forest and land-burning cases presented to the Court. A few individuals have faced the aforementioned legal sanctions on land and forest eradication. On the contrary, forest and land fires persist annually, especially during the arid season. Land and forest fires have detrimental economic and ecological effects. It results in the emission of smoke, which has significantly impeded and disrupted the efficient transportation of products via land, sea, and air, thereby impacting the quality of air and respiration in neighboring nations. Furthermore, from a legal standpoint, forest and land fires are unequivocally substantial undertakings with the potential to exert political sway. Using extant resources, the state administrator should maintain an unwavering concentration on corporate crimes and law enforcement activities in this scenario. (ii) Enhancing environmental competency among justices remains an ongoing endeavor. Either their choices have not produced environmentally sustainable outcomes, or they do not adhere to environmentally favorable

principles. In order to enhance the environmental expertise of justices, the Supreme Court has implemented the practice of Environmentally Certified Judges.

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