
Promoting Transparency and Accountability in the Oil and Gas Extractive Industry Sector for Sustainable Development in Bojonegoro Regency

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ABSTRACT

This study aims to identify the challenges in implementing the principles of transparency and accountability in the governance of extractive industries, particularly in the oil and gas sector in Indonesia. Despite efforts toward democratic reforms, fully democratic governance has not yet been achieved. Transparency and accountability aim to establish information openness in revenue management while encouraging public participation for sustainable development. This study develops an analytical framework based on the "transparency continuum," highlighting information openness, citizen actions, and state responses as key elements to enhance change initiatives. Using a qualitative approach, the research analyzes the implementation of transparency and accountability in Bojonegoro Regency, uncovering the complexities and local contexts in supporting sustainable development within the oil and gas sector.

A. INTRODUCTION

The extractive industry sector, especially oil and gas, has become one of the main drivers of the economy in many developing countries, including Indonesia. Bojonegoro Regency, which is rich in petroleum reserves, has long been the center of attention in this sector. However, while the sector has the potential to contribute significantly to the region's economic development, its existence also poses a number of challenges, including issues of transparency and accountability in revenue management as well as the environmental and social impacts it generates. Improving transparency and accountability in this sector is crucial to ensure that the benefits of natural resource exploitation can be enjoyed by the community at large and contribute to sustainable development in Bojonegoro Regency.

Bojonegoro Regency, renowned for its significant oil production from the Banyu Urip field in the Cepu Block, represents a critical case study for understanding governance challenges and opportunities in Indonesia's extractive sector. The region plays a pivotal role in Indonesia's oil production, contributing substantially to national revenues while also presenting complex socio-economic and

environmental dynamics (Sholikin, 2018). As a site of large-scale extractive activities, Bojonegoro offers a unique microcosm to explore how principles of transparency and accountability are implemented in managing resource wealth.

The regency has been a focal point of various governance initiatives aimed at fostering greater public participation and ensuring equitable distribution of resource benefits. However, these efforts are often met with challenges such as power imbalances, limited local capacity, and varying stakeholder interests. Studying Bojonegoro provides valuable insights into how governance frameworks can be improved to address these issues, making it a relevant and strategic location for examining the broader implications of governance in Indonesia's extractive industries (Sholikin, 2019).

Along with the increasing attention to good governance in the extractive industry sector, many countries have begun to adopt global initiatives such as the Extractive Industries Transparency Initiative (EITI) to ensure that revenues generated from natural resources are used effectively and responsibly. Transparency in the sector allows the public, civil society organizations and other stakeholders to monitor revenue streams from natural resource exploitation, which in turn can reduce the potential for corruption and misuse of public funds (Gillies, 2010a). On the other hand, accountability ensures that governments and companies are bound to the principles of openness and responsibility, both in terms of environmental management and in terms of the allocation of revenues from the sector for the benefit of society (Kolstad & Søreide, 2009).

Bojonegoro Regency has been recognized as one of the largest oil producing regions in Indonesia since the discovery of large reserves in the Banyu Urip oil field in 2001. Based on data from SKK Migas, oil production in this field has contributed a large portion of national oil production. However, this economic success does not necessarily guarantee sustainable development for local communities. Natural resource management that lacks transparency and accountability can lead to a "resource curse", where natural wealth becomes the cause of inequality, social conflict, and environmental damage (Aragón & Rud, 2013).

Transparency in the extractive industry sector refers to the disclosure of information related to contracts, revenues, taxes, and royalties obtained by the government from oil and gas companies. According to a report from the Natural Resource Governance Institute (2017), one of the main challenges in realizing transparency in this sector is the confidentiality of contracts and agreements between the government and companies. In many countries, including Indonesia, oil and gas contracts are often confidential, so the public and civil society organizations do not have access to monitor the terms agreed and how profits from the sector are shared.

This lack of transparency can lead to a range of problems, such as potential corruption and inequities in revenue distribution. In some countries, secrecy in the management of natural resource revenues has led to an increased risk of misappropriation of funds and exacerbated socio-economic inequalities (Maconachie & Hilson, 2011). Therefore, initiatives such as the EITI play an important role in promoting transparency by requiring states and companies to publicly report revenue streams from the extractive sector.

Transparency is often considered the first step towards accountability in the extractive industry sector. Corporate accountability can be strengthened through clear and verified reporting of the impacts of their operations on the environment and society. According to research by Newman et al. (2021), transparency in reporting allows stakeholders, including local communities, governments, and investors, to evaluate the extent to which companies comply with their sustainability commitments.

However, many companies in the extractive sector are still reluctant to disclose actual information regarding their operations, especially related to negative impacts on the environment. A study by Marquis & Qiao (2019) shows that companies often utilize loopholes in regulations to hide information that is detrimental to their image, such as pollution levels or conflicts with local communities (Sholikin, 2021). This lack of adequate transparency allows for green-washing practices, where companies manipulate information to create unfounded perceptions of sustainability.

In Indonesia, although the government has committed to be part of the EITI since 2010, its implementation still faces a number of challenges, including in Bojonegoro. However, the Bojonegoro district government has made some important steps by adopting a transparency policy in the management of oil and gas revenue sharing funds through community involvement in the regional development planning process. This step is considered as one of the good governance models in the extractive sector in Indonesia (Subroto et al., 2015).

Accountability in the management of the extractive industry sector is not only related to how revenues are managed, but also includes the responsibilities of companies and governments in addressing social and environmental impacts arising from extraction activities. Often, local communities around oil and gas drilling areas feel negative impacts, such as environmental damage, land degradation and water pollution, which can threaten their livelihoods (Bebbington et al., 2008).

According to a report from the World Bank (2010), one of the main problems in the extractive sector is the lack of adequate supervision and regulation regarding environmental impacts. In many developing countries, oil and gas companies often operate without strict oversight, resulting in frequent violations of environmental and human rights standards. It is therefore important to strengthen accountability mechanisms that enable local communities and civil society organizations to monitor and hold companies and governments accountable for environmental management and community rights.

In Bojonegoro District, issues related to accountability are also a major concern, especially in terms of addressing the environmental impacts of oil and gas exploration. Communities around drilling areas often complain of environmental damage that is not properly addressed, such as water pollution and degradation of agricultural land. Local governments and companies must ensure that they are responsible for these impacts by providing environmental recovery mechanisms and fair compensation for affected communities (Simangunsong & Silva, 2013).

Sustainable development in the context of extractive industries depends not only on how much revenue is generated from the exploitation of natural resources, but also on how that revenue is managed and allocated to support sustainable economic, social and environmental development. According to Sachs and Warner (2001), countries that successfully manage their natural resources well are countries that have good governance, which includes transparency, accountability, and community participation in decision-making.

Bojonegoro Regency has the potential to become a model of sustainable development in the extractive industry sector, provided that good governance can be consistently applied. One important step that can be taken is to ensure that revenues from the oil and gas sector are managed transparently and accountably, and allocated to support infrastructure development, education, and health that can provide long-term benefits to local communities (Cust & Mihalyi, 2017).

In addition, a sustainable development approach should also include efforts to preserve the environment and mitigate the negative impacts of natural resource exploitation. In Bojonegoro, this can be realized through environmental rehabilitation programs that involve local communities in the planning and implementation process, so that they can actively participate in preserving the environment around the drilling area (Aragón & Rud, 2013).

Transparency and accountability are key to ensuring that the extractive industry sector, particularly oil and gas, can provide sustainable benefits to local communities in Bojonegoro Regency. By adopting good governance principles, local governments and companies can avoid potential risks such as corruption, social inequality and environmental damage that are often associated with this sector. An approach that focuses on community participation, transparent revenue management and environmental responsibility will be an important foundation for sustainable development in Bojonegoro.

B. METHOD

This research used an in-depth qualitative case studies approach to understand the phenomenon of transparency and accountability practices in Bojonegoro. The researcher practiced a relational approach by focusing on the transparency and accountability network of the extractive industry sector in Bojonegoro in the 2019-2023 period. This time period was chosen by considering the data and information that could be collected by the author related to the upstream petroleum industry phase in Banyuurip Field. This study uses a qualitative case study approach to explore transparency and accountability in Bojonegoro's extractive industry governance. Data collection involved interviews with key stakeholders, document analysis, and field observations. A relational approach examined interactions among stakeholders, focusing on collaboration, conflict, and governance dynamics. Using thematic analysis and the "transparency continuum" framework, the study highlights how information openness, citizen actions, and state responses shape governance, offering practical insights for improving transparency and accountability in similar contexts. This research design aims to

understand the transparency process to see what happens between the goal formulation dimension at the international level and the institutionalization dimension at the local level. The researcher practiced field research at the local level with the aim of exploring what and how information can be meaningful to the community and potentially drive collective action. Case selection To understand the process of transparency and accountability, this research chose Bojonegoro because it is an oil and gas producing district. This research design treats one case study to understand how oil and gas shape the process of transparency and accountability. The author applied the instruments by conducting observations, in-depth interviews, document review in the case of Bojonegoro District.

C. RESEARCH FINDING AND DISCUSSION

Information Disclosure in Extractive Industry Sector Management in Bojonegoro

One of the main prerequisites for transparency is the availability of information that can be accessed by the public. In the context of extractive industry, information disclosure regarding contracts, revenues, and expenditures is essential to enable citizens and civil society groups to conduct effective oversight (Haufler & Maier, 2019). In Bojonegoro, the implementation of the Extractive Industries Transparency Initiative (EITI) has provided a boost to information disclosure in the oil and gas sector (Lima & Azevedo-Ramos, 2023). However, this study found that while information is available, many local citizens do not have access or the ability to understand the data provided, reducing the effectiveness of such transparency (Pegg, 2012). This underscores the importance of providing information that is not only open, but also accessible and understandable to the wider community.

Transparency in natural resource management is an important aspect in supporting good governance. Transparency can reduce the potential for corruption, increase accountability, and ensure community participation in the management of available resources (Hardwicke et al., 2022). In Bojonegoro, a district in East Java known for its rich oil and gas resources, the issue of transparency is particularly relevant in the context of natural resource revenue management. Bojonegoro has been recognized as one of the largest oil-producing regions in Indonesia, especially after the discovery of the Cepu block. Therefore, the management of revenue from natural resources, particularly oil and gas, has become a major concern for both the local government and the local community. The level of transparency in natural resource management is key to ensuring that revenues from this sector can be allocated fairly and used for regional development, poverty alleviation, and improved community welfare (Gillies, 2010b).

Sustainability reporting has become a key tool to increase transparency in the extractive industry sector. Reporting standards such as the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) provide a framework for companies to report their environmental and social impacts in a structured manner. However, research by Hossain et al. (2020) shows that many companies in the sector still face challenges in meeting these standards, especially in terms of accurate data collection and verified reporting. For example, mining companies in Indonesia often only report data that benefits them, such as the number of trees planted or the number of jobs created, while negative impacts such as deforestation or water pollution are often ignored. Research by Liu et al. (2020) asserts that this imbalance in reporting reflects a lack of commitment to true transparency and is more reflective of green-washing practices.

Technology has great potential to improve transparency in the extractive industry sector. The use of technologies such as blockchain can help track supply chains in real-time and ensure that every step in the production process is in line with sustainability principles. According to research by Teece (2018), such technology can provide more trust to consumers and other stakeholders, as it enables independent verification of companies' sustainability claims. However, the adoption of these technologies is still limited, especially in developing countries. Barriers such as high costs, lack of infrastructure, and resistance to change often hinder the adoption of more transparent technologies. The study by Chen et al. (2021) shows that while the technology has great potential, its successful implementation is highly dependent on company commitment and adequate regulatory support. Transparency in natural resource management has been a major concern in the global political economy and governance literature.

According to Mehlum, Moene, and Torvik (2006), countries with abundant natural resources tend to experience the so-called “resource curse”, where natural wealth hinders sustainable economic development. To avoid this, strong transparency in natural resource management is required. Transparency allows the public to know how natural resources are managed and revenues from the sector are distributed. Moreover, Eggert (2016) emphasizes that transparency is key to preventing corruption in the natural resource sector. Corruption often occurs when information about natural resource management is not accessible to the public. With good transparency, local and central governments can be more accountable in the management and use of revenues from this sector.

Bojonegoro is an interesting example of transparency in natural resource management in Indonesia. Since the start of the Cepu Block operations, the Bojonegoro local government has taken various steps to ensure that oil and gas revenues are managed in a transparent and accountable manner (Hariyanti & Syahza, 2024). One of the steps taken is the implementation of the Extractive Industries Transparency Initiative (EITI) principles, which encourage openness in reporting revenues and distribution from the extractive sector. Bojonegoro has implemented an open revenue reporting mechanism, where information on the amount of revenue from oil and gas is published regularly. In addition, the local government also involves various community groups in the process of monitoring the management of funds from this sector (Muliansyah et al., 2022). This is in line with efforts to improve accountability and prevent the potential misuse of natural resources by political elites or special interest groups.

Nonetheless, challenges still remain. One of the main challenges is the gap in access to information. Although revenue reports and fund allocations are published, most people in rural areas of Bojonegoro still struggle to understand and access the information (Gusliana et al., n.d.). The digital divide and lack of information literacy are barriers for communities to actively participate in oversight of natural resource management. Community participation in transparency oversight is a key element in ensuring that revenues from natural resources are managed properly. In Bojonegoro, various civil society organizations (CSOs) have played an important role in improving transparency in natural resource management (ABDUL-RAHMAN et al., 2022). Organizations such as the Bojonegoro Institute have worked with the local government to provide a platform for the public to access information on oil and gas revenue management.

The existence of these organizations provides a channel for the community to convey complaints, criticisms and suggestions related to natural resource management. In addition, several participatory programs have been launched, such as the regional development planning deliberation (Musrenbang) that allows citizens to participate in the decision-making process related to the allocation of revenue from the extractive sector. Through this program, communities are expected to participate in monitoring the use of funds and ensuring that the allocation of funds is in line with local needs. Despite efforts to improve transparency in natural resource management in Bojonegoro, there are still several barriers that need to be addressed. One of the main obstacles is the lack of capacity of the local government in managing the huge funds from the oil and gas sector. According to Damanhuri (2020), local governments often lack adequate human resources and technology to efficiently manage oil and gas revenues.

In addition, despite efforts to involve communities in the decision-making process, community participation is still limited. This is due to several factors, including low political and economic literacy among local communities, as well as lingering distrust of local governments (Zainuddin et al., 2021). These limitations hinder the implementation of greater transparency in natural resource management. Corruption also remains a threat to natural resource management in Bojonegoro. Despite efforts to promote transparency, oversight of revenue distribution and infrastructure projects funded by oil and gas revenues remains weak (Lukita et al., 2023). Corruption at the local level is often difficult to detect due to inadequate audit processes and the lack of capacity of local oversight institutions.

Several case studies from other countries can provide valuable lessons for Bojonegoro in improving transparency in natural resource management. For example, in Norway, a country known for its transparent and accountable management of oil resources, the government implements a very strict system of reporting revenues and allocation of funds from the oil sector (Stevens et al., 2018). In addition, Norway also has an oil reserve fund that is managed transparently and overseen by an independent body, which could serve as a model for Bojonegoro. Countries such as Botswana have also managed to avoid the “resource curse” by implementing strong transparency in mineral resource management (Leith & Morison, 2004). Botswana consistently publishes revenue reports from the mining

sector and involves communities and other stakeholders in decision-making regarding revenue allocation. Lessons from these countries demonstrate the importance of community engagement and strong oversight systems in ensuring that natural resources are managed well and benefit all communities.

Transparency in natural resource management in Bojonegoro is an important step to ensure that natural resources are used for sustainable development. While there have been various initiatives to improve transparency, such as community engagement and EITI implementation, there are still several challenges that need to be addressed, including gaps in access to information, corruption, and low local government capacity. To improve transparency, further steps are needed such as increasing information literacy among the public, strengthening local oversight institutions, and adopting best practices from other countries that have been successful in managing natural resources transparently. Thus, it is expected that Bojonegoro can utilize its natural resources for the welfare of the community and sustainable regional development.

Relationship between Information Disclosure, Citizen Participation, and Government Response in Monitoring the Extractive Industry Sector in Bojonegoro

One of the key elements in transparency and accountability initiatives is the active involvement of citizens in monitoring and evaluating the performance of government and extractive companies. This involvement can take the form of advocacy, community supervision, and participation in decision-making processes (Gillies, 2020). In Bojonegoro, several initiatives have emerged from civil society organizations that focus on monitoring oil and gas revenues, as well as the social and environmental impacts of natural resource exploitation (Van der Ploeg & Rezai, 2020). However, community engagement still faces major challenges, mainly related to low information literacy and capacity to conduct in-depth analysis of available data. The success of this initiative requires increasing the capacity of the public to understand and use transparency data as an advocacy tool.

Information disclosure and citizen participation will not be effective without an adequate response from the government. State responses in this case include policy reforms to strengthen transparency and accountability, as well as strict policy implementation. The Bojonegoro government has, in recent years, made progress in responding to the need for transparency in the oil and gas sector through improved public financial reporting and management of oil revenue sharing funds. However, weaknesses in law enforcement and accountability mechanisms remain a major obstacle. The government needs to be more proactive in following up on findings from civil society and independent reports that indicate non-compliance or misappropriation of funds.

Bojonegoro, as one of the largest oil-producing regions in Indonesia, faces major challenges in managing its natural resources. The management of the extractive industry sector, particularly oil and gas, requires strong accountability and oversight mechanisms to ensure transparency and fairness in the utilization of these natural resources. Without effective mechanisms, the potential for corruption, abuse of power, and environmental damage increases, which ultimately hinders the economic and social benefits that can be received by local communities. Accountability and oversight mechanisms in the sector are important to ensure that revenues generated from natural resources are managed effectively and transparently, and directed towards the public interest. These mechanisms involve not only governments and companies, but also civil society organizations and local communities, who have the right to know how their natural resources are used and regulated (Inderberg et al., 2019).

Accountability in the extractive sector involves a number of parties, including the central government, local governments, companies, and local communities. According to Mehlum, Moene, and Torvik (2006), good governance in the extractive industry depends largely on how well these institutions work to oversee and manage natural resources. Accountability in this sector can be seen from two main aspects: vertical and horizontal. Vertical accountability is the relationship between the government and the community, where the community can monitor and hold the government accountable for natural resource management. Meanwhile, horizontal accountability refers to oversight between state institutions, where audit bodies or anti-corruption agencies monitor the performance of local governments in managing resources.

In Bojonegoro, vertical accountability mechanisms are particularly important given that extractive industries operate in areas with local communities that have direct involvement in the social, economic and environmental impacts of oil extraction activities. Transparency in revenue, use of funds, and

environmental impacts are key components to be overseen through this mechanism. In addition, civil society organizations in Bojonegoro play an informal oversight role, by conducting public campaigns and advocacy related to extractive industry governance. Bojonegoro has implemented several accountability mechanisms designed to increase transparency and public participation in the management of its natural resources. One of the main mechanisms is the implementation of the Development Planning Deliberation (Musrenbang), which involves community participation in the decision-making process regarding the allocation of oil revenues. In Musrenbang, the people of Bojonegoro are given the opportunity to provide input and monitor the spending plan of funds from the extractive sector.

In addition to Musrenbang, Bojonegoro also participates in global initiatives such as the Extractive Industries Transparency Initiative (EITI), which aims to increase transparency in the extractive industry through reporting of revenues and payments by oil companies to the government. In the context of EITI, Bojonegoro became one of the regions recognized for its transparency in the management of revenues from the oil and gas sector, although challenges remain in terms of full integration of this standard at the local level. Other accountability mechanisms include annual reporting by local governments on the use of Revenue Sharing Funds (DBH) from the oil sector. This reporting includes information on budget allocations for development projects, such as infrastructure and public services, funded by revenues from the extractive sector (Rahman & Nguyen-Viet, 2023). This reporting is also an important means for the public to monitor how the revenue is used and whether the funds are allocated fairly and on target.

Oversight of the extractive sector in Bojonegoro is carried out through various institutions, both formal and informal. Formal institutions, such as the Supreme Audit Agency (BPK) and the Corruption Eradication Commission (KPK), play a role in overseeing financial management and potential abuse of authority in this sector (Pranata, 2017). BPK, for example, conducts audits of local government financial reports related to oil and gas revenues to ensure that funds obtained from the extractive sector are used in accordance with existing regulations and policies. In addition, at the local level, the Bojonegoro government established supervisory teams tasked with monitoring the implementation of projects funded by oil revenues. These teams are responsible for ensuring that the projects are implemented according to the set budget and plan, as well as verifying the final results of the projects (Sari et al., 2022).

Civil society organizations also play an important role in informal oversight. For example, organizations such as the Bojonegoro Institute engage in independent monitoring of natural resource management and the social and environmental impacts of extractive industries in Bojonegoro. They actively report findings related to environmental damage, human rights violations, and inequities in revenue allocation. The role of community oversight is important in a context where government agencies often face limited resources or reluctance to conduct comprehensive oversight. Despite the accountability and oversight mechanisms in place in Bojonegoro, significant challenges remain. One of the main challenges is the lack of local government capacity in managing and overseeing extractive industry revenues. Many local government officials still lack understanding of the legal and regulatory framework related to natural resource management, making it difficult for them to ensure oil companies' compliance with environmental and social standards.

Another challenge is the lack of community involvement in decision-making processes. While Musrenbang offers space for public participation, there are still gaps in terms of equal and inclusive representation, especially from marginalized groups such as women and indigenous peoples. Limited access to information and low literacy on extractive issues are also obstacles in ensuring active community participation in the monitoring process. In addition, corruption remains a problem that is difficult to eliminate. Despite initiatives such as EITI that encourage transparency, corruption in the extractive sector in Indonesia still occurs, especially related to misappropriation of budget allocations and granting of exploration licenses. In Bojonegoro, cases such as misuse of revenue sharing funds and lack of transparency in awarding contracts to oil companies are issues that continue to hamper efforts to improve accountability.

Revenue sharing (DBH) from the oil sector is the main source of revenue for the Bojonegoro local government. However, although the amount of DBH received is quite large, the impact of this revenue on regional development is often not as expected. Research by Rahman and Aisyah (2019) shows that the allocation of DBH in Bojonegoro has not been optimal in supporting programs that really benefit the community, such as education, health, and infrastructure. The lack of transparency and strong

supervision in the use of DBH is one of the main causes of this problem. In some cases, projects funded by DBH did not go according to plan or were even abandoned. For example, a road construction project in one oil-producing village was halted due to a dispute between the local government and the contractor, caused by a mismatch in budget allocation and implementation schedule. Such cases demonstrate the need for stronger and more transparent oversight mechanisms in DBH management in Bojonegoro.

This research shows that information disclosure, citizen participation, and state responsiveness are closely intertwined in creating an enabling environment for transparency and accountability in the extractive industry sector (Moses et al., 2024). They form a feedback loop that, when functioning properly, can increase public trust and ensure that profits from extractive industries actually benefit sustainable development. In Bojonegoro, despite progress in information disclosure and public participation, weaknesses in the state response often undermine existing transparency initiatives. To strengthen such initiatives, increased collaboration between civil society, government and oil companies is needed to build stronger accountability systems.

Potential for Sustainable Development Through Utilization of Natural Resource Funds

Bojonegoro has great potential to build community welfare through the utilization of natural resource funds obtained from oil and gas exploitation. However, to ensure these benefits can be felt in the long term, it is necessary to apply the concept of sustainable development that considers social, economic, and environmental aspects. Sustainable development itself can be defined as a development process that meets the needs of the present without compromising the ability of future generations to meet their needs. The management of funds generated from natural resources is one of the key aspects of sustainable development efforts. Some countries rich in natural resources have shown mixed results in this regard, depending on how the funds are managed. In Bojonegoro, the main challenge in managing oil and gas funds is to ensure that the revenue generated from this non-renewable resource can be optimally utilized for sustainable development.

In a global context, funds obtained from natural resources often risk creating what is referred to as the resource curse. This phenomenon occurs when countries or regions rich in natural resources experience economic stagnation or social decline due to mismanagement of revenues from the sector. Bojonegoro, which has long been the center of the oil and gas industry in Indonesia, will have to face similar challenges in the absence of proper management. However, Bojonegoro also has a great opportunity to utilize oil and gas funds to support various development initiatives that focus on infrastructure development, education quality improvement, and local potential-based poverty alleviation programs (Sholikin, 2024). These are important steps that can support sustainable development efforts in the district. The balancing funds generated from the oil and gas sector in Indonesia are regulated in Law No. 33/2004 on Financial Balance between the Central and Local Governments. These funds include Revenue Sharing Funds (DBH) that are allocated to natural resource-producing regions as compensation for the exploitation of natural resources in their region. Bojonegoro, as one of the largest oil and gas producers in Indonesia, receives a significant portion of this DBH (Sholikin, 2020).

The utilization of DBH in Bojonegoro has been directed to various infrastructure development projects, including roads, bridges, and other public facilities. However, there are still major challenges in terms of the distribution of benefits from these funds, especially in relation to the development gap between regions within the regency. For example, while Bojonegoro's city center has enjoyed a range of modern facilities, some villages in remote areas still lag behind in terms of access to basic infrastructure (Sholikin, 2018). To support sustainable development, Bojonegoro needs to improve transparency and accountability in the management of DBH. In addition, the regency government should also encourage community participation in the process of planning and monitoring the use of these funds. Thus, funds obtained from natural resources can be used more effectively for the welfare of the wider community.

One important aspect of sustainable development is economic diversification. Excessive dependence on one economic sector, such as oil and gas, can increase the risk to the regional economy if global oil prices fall or if oil and gas reserves are depleted. Therefore, the utilization of oil and gas funds in Bojonegoro should be directed to support other sectors that have the potential to grow, such as agriculture, tourism, and creative industries. In recent years, the Bojonegoro government has begun

to redirect some of the revenue from the oil and gas sector to support the development of non-oil and gas sectors. For example, initiatives to increase agricultural productivity through modernization of farming tools and farmer training have been launched to strengthen the agrarian sector which is the backbone of the economy of rural communities. In addition, the development of cultural and nature-based tourism has also been one of the priorities to attract more tourists and investment to the region.

This economic diversification effort is the right step to support sustainable development. By reducing dependence on the oil and gas sector, Bojonegoro can improve the region's economic resilience and create more sustainable jobs in the future. In addition to economic development, social development is also an important aspect of sustainable development. The utilization of natural resource funds in Bojonegoro can be directed towards improving the quality of education, health services, and poverty alleviation programs. Improving the quality of human resources through education and training is one of the keys to ensuring that the people of Bojonegoro can actively participate in the development of their region.

Over the past few years, the Bojonegoro Regency government has allocated funds from oil and gas DBH to improve education infrastructure, build new schools, and provide scholarships to outstanding students from underprivileged families. These measures aim to create a younger generation that is better educated and ready to face future challenges. In the health sector, oil and gas funds have also been used to improve health facilities in various parts of Bojonegoro, especially in rural areas that were previously less accessible to medical services. In addition, public health programs, such as maternal and child health campaigns and immunization programs, have been funded by revenues from the oil and gas sector.

One of the main pillars of sustainable development is environmental protection. Exploitation of natural resources, especially in the oil and gas sector, often has a negative impact on the environment if not managed properly. Therefore, the Bojonegoro government needs to ensure that every oil and gas exploitation activity is carried out with due regard to environmental aspects, including waste management, water conservation, and post-exploitation land rehabilitation. Bojonegoro can also learn from the experiences of other countries that have successfully implemented strict environmental policies in the exploitation of natural resources. For example, Norway has successfully managed its oil and gas sector with a sustainable approach, where oil and gas companies are required to comply with strict environmental standards and funds generated from the sector are used to support environmental protection initiatives.

The utilization of natural resource funds in Bojonegoro has great potential to support sustainable development if managed properly. The district government needs to ensure that funds obtained from the oil and gas sector are used optimally to diversify the economy, improve social services, and protect the environment. In addition, transparency and community participation in the planning and monitoring process of the use of these funds should be prioritized to avoid any negative impacts that may arise from mismanagement of natural resources funds. With the right approach, Bojonegoro can turn its natural wealth into capital to create a more sustainable future for its people. However, success in achieving this goal largely depends on the commitment of all parties, including the government, private sector, and civil society, to work together in supporting sustainable development in the regency.

D. CONCLUSION AND RECOMMENDATION

Conclusion

The oil and gas extractive industry sector in Bojonegoro Regency plays an important role in economic and social development. However, without transparency and accountability, the sector's potential to support sustainable development risks not being optimally realized. Using an analytical framework that emphasizes information disclosure, citizen action, and state response, this study finds that transparency and accountability can be improved through synergies between government, civil society, and private sector actors. Information disclosure is a basic element in promoting transparency in the extractive sector. Bojonegoro, as one of the largest oil and gas producing regions in Indonesia, has utilized its Revenue Sharing Fund (DBH) from the oil and gas industry for infrastructure development and public services. However, the fundamental problem found is the lack of public access to accurate and timely information on the use of DBH.

Bojonegoro, with its abundant natural resources, has a great opportunity to become an example of a region that successfully utilizes its natural resources in a sustainable manner. However, this will only be achieved if the government, community and private sector work together to realize transparency and accountability in the management of the oil and gas sector. The synergy between information disclosure, citizen action, and state response will be the key to realizing sustainable development that is inclusive and positively impacts all Bojonegoro communities. Overall, transparency and accountability in the management of the oil and gas sector in Bojonegoro can be improved through better information disclosure, active citizen participation, and quick and effective state response. These measures are not only important to ensure optimal use of oil and gas revenues, but also to support sustainable development in the area. Bojonegoro's success in implementing the principles of transparency and accountability will set an example for other natural resource producing regions in Indonesia, and can contribute to the achievement of national sustainable development goals.

In promoting transparency and accountability in the extractive industry sector in Bojonegoro Regency, a framework that emphasizes information disclosure, citizen participation, and state responsiveness provides a comprehensive view of the challenges and opportunities. This research shows that transparency cannot stand alone, but must be supported by collective action from the community and government responsiveness in ensuring that natural resources are truly utilized for sustainable development.

Recommendation

This study opens up room for further research to explore the following topics: (1) Social Impact of Transparency in the Extractive Sector: How information disclosure affects social dynamics in society, especially in terms of wealth distribution and development inclusiveness. (2) Effectiveness of Transparency Policies in Other Regions: Comparative studies with other oil and gas producing regions in Indonesia or developing countries can help understand what factors determine the success of transparency and accountability initiatives. (3) The Effect of Technology on Transparency: Further research into how technologies such as big data, blockchain, or artificial intelligence can be used to improve transparency and accountability in the extractive sector. These recommendations aim to strengthen transparency and accountability efforts that support sustainable development, by emphasizing the active role of communities, increasing government capacity, and wise use of resources in Bojonegoro.

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