



License to Pollute? Examining Environmental Permitting under Regional Autonomy in Indonesia

Wahyullah Ahmed Yusuf ^a✉, Achmad Humam ^a

^a Department of Sharia, College of Sharia and
Fundamentals Religion, Najran University, Saudi
Arabia

✉ Corresponding email: wahyullah.yusuf@nu.edu.sa

Abstract

This paper delves into the intricacies of environmental permitting practices within the context of regional autonomy in Indonesia, scrutinizing whether the granting of permits inadvertently facilitates environmental degradation. It investigates the regulatory frameworks and enforcement mechanisms governing environmental permitting at the local level, shedding light on the potential trade-offs between economic development and environmental protection. Through empirical analysis and case studies, the paper uncovers the realities of environmental permitting under regional autonomy, revealing instances where lax regulations or inadequate enforcement have led to environmentally harmful activities. It examines the challenges faced by local authorities in balancing the need for economic growth with the imperative of environmental sustainability, highlighting the complex dynamics at play.



Copyrights © Author(s). This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License. (CC BY-SA 4.0). All writings published in this journal are personal views of the author and do not represent the views of this journal and the author's affiliated institutions.

Furthermore, the paper evaluates the effectiveness of existing environmental permitting mechanisms in mitigating pollution and safeguarding natural resources. It identifies gaps in regulatory oversight, shortcomings in monitoring and enforcement, and instances of regulatory capture or corruption that undermine the integrity of the permitting process. In conclusion, the paper underscores the importance of reevaluating environmental permitting practices under regional autonomy to ensure that permits are not inadvertently granting a "license to pollute." It calls for enhanced transparency, accountability, and community participation in the permitting process, alongside strengthened enforcement mechanisms and capacity-building initiatives to uphold environmental standards and promote sustainable development in Indonesia's decentralized governance landscape.

KEYWORDS *License, Environmental Protection, Regional Authority, Environmental Permit, Sustainable Development*

Introduction

The implementation of regional autonomy in Indonesia has ushered in a new era of governance, where local governments are empowered to make decisions tailored to their specific contexts.¹ Within this framework, environmental management and permitting have become focal points, representing a delicate balance between economic development and environmental sustainability.² This paper embarks on a journey to

¹ Turner, Mark. "Regional autonomy and the state in Indonesia." *Autonomy, self-governance and conflict resolution: Innovative approaches to institutional design in divided societies* 33 (2005): 186; Setiawan, Hendy, Genut Wahyu Widiono, and Galuh Hikmah. "The Formation of the New Autonomous Region of Papua and Welfare Guarantees in the Decentralization Policy." *Jurnal Borneo Administrator* 19.3 (2023): 319-332; Sartika, Dewi. "Decentralization and regional autonomy in the industrial revolution 4.0 era." *MICEB: Mulawarman International Conference on Economics and Business*. Vol. 2. No. 1. 2019.

² López, Ramón, and Michael A. Toman, eds. *Economic development and environmental sustainability: new policy options*. OUP Oxford, 2006; Basiago,

examine the intricacies of environmental permitting under the paradigm of regional autonomy in Indonesia.

Indonesia's diverse ecological landscapes, rich biodiversity, and burgeoning industrial sector pose unique challenges and opportunities for environmental governance. As each region grapples with its distinct environmental concerns and developmental aspirations, the need for a nuanced understanding of environmental permitting processes becomes imperative.

Against this backdrop, this study aims to shed light on the evolving landscape of environmental permitting, exploring the interplay between local autonomy, national regulations, and environmental conservation efforts. By delving into the regulatory frameworks, administrative procedures, and practical challenges encountered at the regional level, we seek to uncover the dynamics shaping environmental decision-making across Indonesia's archipelago.

Moreover, this study is not merely an academic exercise but a practical endeavor with significant implications for sustainable development and environmental stewardship. Understanding how environmental permitting is navigated under regional autonomy is pivotal for promoting responsible resource utilization, mitigating environmental risks, and fostering inclusive and environmentally sustainable growth.

In the further, we will also delve into the historical context of regional autonomy in Indonesia, elucidate the legal and regulatory frameworks governing environmental permitting, and critically analyze the challenges and opportunities inherent in the decentralization of environmental governance.³ Through this comprehensive exploration, we aim to provide insights that inform policy discourse, empower stakeholders, and

Andrew D. "Economic, social, and environmental sustainability in development theory and urban planning practice." *Environmentalist* 19.2 (1998): 145-161.

³ Badrudin, Rudy, and Baldrick Siregar. "The evaluation of the implementation of regional autonomy in Indonesia." *Economic Journal of Emerging Markets* (2015): 1-11; Holtzappel, Coen JG, and Martin Ramstedt, eds. *Decentralization and regional autonomy in Indonesia: implementation and challenges*. Institute of Southeast Asian Studies, 2009; Butt, Simon. "Regional Autonomy and Legal Disorder: The Proliferation of Local Laws in Indonesia." *Singapore Journal of Legal Studies* (2010): 1-21.

contribute to the advancement of environmental sustainability within the framework of regional autonomy in Indonesia.

For this context, regional autonomy represents the devolution of authority from the central government to local administrations, empowering them to govern and develop their respective regions in alignment with their unique potentials and needs. A significant milestone in the evolution of regional autonomy occurred with the enactment of Law Number 32 of 2004 on Regional Government and Law Number 33 of 2004 on Financial Balance between the Central and Regional Governments. These legislative measures superseded Law Number 22 and Number 25 of 1999, marking a new phase in the implementation of regional autonomy in Indonesia.⁴

Essentially, regional autonomy entails granting each region the authority and responsibility to establish a comprehensive, tangible, and accountable local governance system. This distribution of duties, functions, and roles between the central government and regional administrations is aimed at ensuring that each region has the necessary financial resources to fulfill its governmental obligations. Consequently, regions are expected to progress towards greater advancement, self-sufficiency, prosperity, and competitiveness in both governance and regional development endeavors.

Despite over a decade of regional autonomy implementation, numerous challenges persist within the regions, with indications of regulatory violations occurring under the guise of promoting autonomy and regional development. The primary objective of regional autonomy was to foster regional economic growth and ensure equitable development between the central government and local regions. This objective serves as a driving force for regions to capitalize on their resource potentials, such as natural resources. Many regions boast abundant natural resources, including mineral deposits and metals, which local governments often

⁴ Ristanti, Yulia Devi, and Eko Handoyo. "Undang-undang otonomi daerah dan pembangunan ekonomi daerah." *Jurnal RAK (Riset Akuntansi Keuangan)* 2.1 (2017): 115-122; Muin, Fatkhul. "Otonomi daerah dalam perspektif pembagian urusan pemerintah-pemerintah daerah dan keuangan daerah." *Fiat Justisia* 8.1 (2014): 69-79; Safitri, Sani. "Sejarah perkembangan otonomi daerah di Indonesia." *Criksetra: Jurnal Pendidikan Sejarah* 5.1 (2016).

exploit to boost their local revenue (*Pendapatan Asli Daerah* or PAD), stimulate economic growth, facilitate development, alleviate poverty, and enhance community welfare. However, this pursuit of economic benefits through resource exploitation has led to various issues and conflicts, raising questions about the true fulfillment of the goals of regional autonomy.⁵

In addition to the economic concerns, the rampant exploitation of natural resources has led to severe environmental degradation in many regions. According to Law Number 32 of 2009 concerning Environmental Protection and Management (hereinafter as UUPPLH), environmental preservation and management constitute a systematic and integrated endeavor aimed at safeguarding environmental functions and preventing pollution and/or damage. This comprehensive approach encompasses planning, utilization, control, maintenance, supervision, and law enforcement.⁶

Paragraphs 63(1c)-3c of the UUPPLH stipulate that both the central and regional governments bear the authority and responsibility to formulate and execute policies aligned with the Environmental Management and Protection Plan (RPPLH). Furthermore, articles 65(2) and 70 emphasize the imperative of community involvement in environmental management and protection, both in passive and active capacities.⁷

Heryandi underscores the critical importance of enforcing environmental regulations amidst the pursuit of regional development goals. He emphasized that while regional autonomy aims to empower local governments for sustainable development, it's essential to recognize that

⁵ Yuliadi, Imamudin. "Determinants of Local Government Revenue: A Survey of Regional Economic Development in Indonesia." *Quality-Access to Success* 24.193 (2023); Andjarwati, Tri, et al. "Analysis of local own revenue and balancing funds on the financial performance." *International Journal of Economics and Finance Studies* 13.1 (2021): 235-250.

⁶ Legge, John D. *Problems of regional autonomy in contemporary Indonesia*. Equinox Publishing, 2009; Taufiqurokhman, Endang Sulastri, and Harits Hafid. "Indonesian Governments Policy on Environmental Law in the Era of Regional Autonomy." *Systematic Reviews in Pharmacy* 11.12 (2020): 1203-1209.

⁷ Armunanto, A., S. Nadir, and D. Ekawaty. "Environmental dilemma under implementation of Indonesian regional autonomy." *IOP Conference Series: Earth and Environmental Science*. Vol. 343. No. 1. IOP Publishing, 2019.

environmental protection must not be compromised.⁸ Furthermore, the provisions outlined in the UUPPLH highlight the shared responsibility between the central and regional authorities, as well as the indispensable role of community participation in preserving our environment for future generations.⁹

Furthermore, development initiatives in numerous regions lack adherence to the principles of sustainable development. Repeated developmental undertakings often result in ecosystem degradation. It appears that regional authorities' issuance of industrial and mineral resource mining licenses is frequently disregarded by business entities in their pursuit of economic gains, neglecting environmental sustainability considerations. This disregard for environmental preservation is evident in various regions where the exploitation of natural resources and industrial expansion have inflicted significant environmental damage. For instance, the Papua region—home to the Freeport company¹⁰, East Kalimantan

⁸ Heryandi, Heryandi. "Environmental Law Policy as an Approach to Achieve Sustainable Development and Prosperity in an Era of Regional Autonomy." *Environmental Policy and Law* (2018): 83-87.

⁹ See also Dermawan, Ahmad, and Ida Aju Pradnja Resosudarmo. "Forests and regional autonomy: The challenge of sharing the profits and pains." *Which way forward*. Routledge, 2010, pp. 325-357.

¹⁰ Firmanda, Hengki, and M. Alpi Syahrin. "Mitigation of Environmental Damage Through Natural Resources Management Contracts (Eco-Contract Perspective)." *Journal of Applied Engineering and Technological Science (JAETS)* 4.2 (2023): 765-772; Astuti, Amelia Dwi, and Ika Riswanti Putranti. "Implikasi Kebijakan Indonesia dalam Menangani Kasus Pencemaran Lingkungan oleh PT. Freeport terhadap Keamanan Manusia di Mimika Papua." *Journal of International Relations Universitas Diponegoro* 4.3 (2018): 547-555.

with its extensive mining operations¹¹, Jakarta with its industrial sector¹², and Rembang Regency, where the proliferation of stone excavation industries has led to environmental degradation owing to business activities and industrial waste discharge.¹³

The devolved authority granted by the central government through regional autonomy appears to be misinterpreted in many regions, as economic growth and development take precedence over environmental concerns, leading to environmental degradation. This disregard for environmental protection blatantly contravenes Law Number 32 of 2009 concerning Environmental Protection and Management (UUPLH). Such violations starkly contradict the fundamental objectives of regional autonomy.

The pursuit of balanced development under the banner of regional autonomy has unearthed a pressing concern: environmental degradation. In light of this context, the authors navigate through the following inquiries. The correlation between regional autonomy and environmental conservation remains a pivotal question demanding exploration. Moreover, delving into the practical implementation of licensing laws within the environmental sector amid the era of regional autonomy unveils complexities that warrant scrutiny. Equally imperative is the identification of strategic pathways available to regions for mitigating environmental damage within the ambit of regional autonomy.

¹¹ Kurniawan, Robert, et al. "Eco-environment vulnerability assessment using remote sensing approach in East Kalimantan, Indonesia." *Remote Sensing Applications: Society and Environment* 27 (2022): 100791; Kotijah, Siti, and Ine Ventyrina. "Preventive regulations to remove environmental damage to mangrove ecosystem in East Kalimantan, Indonesia." *International Journal of Research in Law, Economic and Social Sciences* 1.1 (2019); Afkarina, Kunny Izza Indah, Sindhung Wardana, and Poerborini Damayanti. "Coal mining sector contribution to environmental conditions and human development index in East Kalimantan Province." *Journal of Environmental Science and Sustainable Development* 2.2 (2019): 192-207.

¹² Steinberg, Florian. "Jakarta: Environmental problems and sustainability." *Habitat International* 31.3-4 (2007): 354-365.

¹³ Roziqin, Ali. "Environmental policy of mangroves management in Rembang Regency." *E3S Web of Conferences*. Vol. 31. EDP Sciences, 2018; Lisdiyono, Edy. "The cancellation of environmental license of pt. Semen indonesia: A strategic environmental assessment." *Hasanuddin Law Review* 3.3 (2018): 322-333.

Exploring the Nexus of Regional Autonomy and Environmental Conservations

Before the reform era, Indonesia's development process was highly centralized, leading to uneven development. The focus on centralized development left districts feeling marginalized, resulting in various social and economic challenges. Socio-economic disparities between regions and the central government fueled movements and policies advocating for regional autonomy or decentralization.¹⁴

Regional autonomy entails the delegation of authority from the central government to regional administrations, allowing them to manage their own affairs based on the needs and aspirations of their constituents within the framework of Indonesia's unitary state. This transfer of authority, termed decentralization, represents a paradigm shift in Indonesia's governance system. Decentralization, a concept commonly associated with organizational structures, has now become synonymous with the Indonesian government system, signifying a fundamental transformation in governance dynamics.¹⁵

Decentralization embodies the transfer of responsibilities, authority, and resources—including funds, personnel, and other assets—from the central government to local administrations. The underlying rationale is to bring decision-making closer to the grassroots level, where individuals directly experience the impact of government programs and services. By doing so, the aim is to enhance the relevance of public services, aligning them more closely with the unique needs and circumstances of local communities, while concurrently advancing broader social and economic objectives at both the local and national levels. Efforts to bolster socio-economic development planning, implementation, and financing are

¹⁴ Yakub, Andi, Ahmad Bashawir Abdul Ghani, and Mohammad Syafiâ. "Urgency of political decentralization and regional autonomy in Indonesia: Local perspectives." *Journal of International Studies* 14 (2018): 141-150; Badrudin, Rudy, and Baldrick Siregar. "The evaluation of the implementation of regional autonomy in Indonesia." *Economic Journal of Emerging Markets* (2015): 1-11.

¹⁵ Jaya, Wihana Kirana, and Howard Dick. "The latest crisis of regional autonomy in historical perspective." *Indonesia Today: Challenges of History* (2001): 216-228.

envisioned to foster the effective and efficient utilization of government resources, ensuring that they are optimally deployed to address local needs and priorities.¹⁶

In accordance with Law Number 32 of 2004, regional autonomy encompasses the entitlement, authority, and obligation of autonomous regions to administer and regulate their own governmental affairs, as well as address the interests of local communities in adherence to established legal frameworks. The conceptualization of decentralization and regional autonomy is predominantly examined through an organizational and managerial perspective, which underscores the imperative of optimizing efficiency and effectiveness in task execution.¹⁷

Scholars such as Osborne and Ansell, et.al, have outlined four principal advantages of decentralization. Firstly, decentralized institutions exhibit significantly greater flexibility compared to centralized counterparts, enabling them to promptly respond to evolving environmental conditions and emerging societal needs.¹⁸

A similar perspective is echoed by Rondinelli et.al, who meticulously outline 14 advantages associated with decentralization and regional autonomy policies. Among these, six key benefits include enhancing the articulation and implementation of development policies, streamlining complex procedures, facilitating more effective coordination of diverse activities, enhancing operational efficiency under local administration, fostering increased community engagement in development initiatives,

¹⁶ Nasution, Anwar. "The government decentralization program in Indonesia." *Central and local government relations in Asia*. Edward Elgar Publishing, 2017, pp. 276-305; Talitha, Tessa, Tommy Firman, and Delik Hudalah. "Welcoming two decades of decentralization in Indonesia: a regional development perspective." *Territory, Politics, Governance* 8.5 (2020): 690-708.

¹⁷ Devas, Nick. "Indonesia: what do we mean by decentralization?." *Public Administration and Development: The International Journal of Management Research and Practice* 17.3 (1997): 351-367.

¹⁸ Osborne, Sam. "Learning from Anangu histories: Population centralisation and decentralisation influences and the provision of schooling in tri-state remote communities." *The Australian Journal of Indigenous Education* 44.2 (2015): 127-138; Ansell, Christopher, and Jane Gingrich. "Trends in decentralization." *Democracy transformed* 1 (2003): 140-64.

and optimizing the delivery of essential services to address the basic needs of the populace.¹⁹

Additionally, Seymour and Turner delineated the objectives of augmenting regional autonomy into four distinct categories. Firstly, to enhance the economic growth of each region, ensuring alignment between economic development and the unique needs, circumstances, and capacities of each locality. Secondly, to bolster the quantity and caliber of community services within each region. Thirdly, to ameliorate the socio-cultural conditions of the populace residing in each region. Lastly, to advance the democratization of national and regional governance structures.²⁰

The review highlights the multifaceted goals and objectives underpinning regional autonomy policy. Firstly, it emphasizes the imperative of streamlining service delivery processes to enhance their efficiency and effectiveness in catering to community needs. Secondly, the policy aims to spur economic growth and promote development at the district level, aligning initiatives with local contexts and aspirations. Moreover, it seeks to foster greater public participation in political life and governance processes, facilitating more inclusive decision-making and implementation. Lastly, the policy endeavors to improve the effectiveness of development coordination and supervision mechanisms, ensuring that resources are optimally allocated and utilized to advance regional development agendas.

The enactment of Law Number 32 of 2004, which introduced regional autonomy, extends beyond mere alterations to the system and structure of local governance. It also encompasses provisions regarding local government financing, notably addressing the regulation of financial balance between the central and regional administrations. Law Number 33 of 2004, in particular, delineates the principles of fair, democratic, and

¹⁹ Rondinelli, Dennis A., John R. Nellis, and G. Shabbir Cheema. "Decentralization in developing countries." *World Bank staff working paper* 581 (1983): 13-28. See also Rondinelli, Dennis A. "Decentralization and development." *International development governance*. Routledge, 2017, pp. 391-404.

²⁰ Seymour, Richard, and Sarah Turner. "Otonomi daerah: Indonesia's decentralisation experiment." *New Zealand Journal of Asian Studies* 4 (2002): 33-51.

transparent financial regulation between the central government and regional entities. Regional funding is structured to align with both mandatory central affairs and locally elected priorities, drawing from various revenue streams such as Local Original Income (PAD), Balancing Funds, Regional Loans, Regional Levies, and other legitimate sources of revenue.²¹

The nexus between regional autonomy and the environment significantly influences environmental management within the framework of regional autonomy, particularly concerning natural resources. This relationship is pivotal as natural resources serve as a primary focus for regional governments in generating revenue through Regional Original Revenue (PAD) to sustain governance activities. However, the indiscriminate exploitation of natural resources poses considerable environmental risks and challenges. In the absence of robust regulations, the well-being of local communities remains precarious, as they are susceptible to the adverse impacts of environmental degradation within the region.²² Regions dependent on natural resource exploitation for economic advancement frequently overlook environmental regulations, thereby exacerbating environmental degradation. Consequently, environmental deterioration emerges as a critical regional concern intricately intertwined with economic growth objectives.²³

²¹ Sukarniati, Lestari, and Firsty Ramadhona Amalia Lubis. "Determinants of Local Original Income The Era of Special Autonomy for the Government of Aceh Province." *Optimum: Jurnal Ekonomi dan Pembangunan* 11.1 (2021): 92-106; Sari, Purnama, R. Rindu Garvera, and Aan Anwar Sihabudin. "What is the Contribution of Local Original Revenue to Regional Financial Independent?." *JPAS (Journal of Public Administration Studies)* 3.2 (2018): 78-81.

²² Setiawan, Bakti, and Sudharto P. Hadi. "Regional autonomy and local resource management in Indonesia." *Asia Pacific Viewpoint* 48.1 (2007): 72-84. *See also* Muharram, Samahuddin, et al. "Politics of Ecology on Environmental Management in Regional Autonomy Perspective in Banjar Regency." *International Journal of Politic, Public Policy and Environmental Issues* 1.02 (2021): 80-87.

²³ Sambanis, Nicholas, and Branko Milanovic. "Explaining regional autonomy differences in decentralized countries." *Comparative Political Studies* 47.13 (2014): 1830-1855; Moonti, Roy Marthen. "Regional Autonomy in Realizing Good Governance." *Substantive Justice International Journal of Law* 2.1 (2019): 43-53.

Discussing the pivotal role of Law Number 32 of 2009 concerning Environmental Protection and Management (UUPLH) prompts us to recognize the profound impact it has on shaping environmental governance in Indonesia. This legislation not only delineates the division of authority between the central government and regional administrations but also empowers local governments with significant responsibilities aimed at safeguarding the environment. Through UUPLH, local administrations are entrusted with a broad spectrum of tasks, ranging from planning and resource utilization to pollution control and conservation.

At its core, UUPLH underscores the importance of proactive planning in environmental management. By conducting comprehensive environmental inventories and designating protected areas, local governments lay the groundwork for sustainable development that prioritizes environmental conservation. The Environmental Protection and Management Plan (RPPLH) serves as a strategic roadmap, guiding decision-making and action to address environmental challenges while promoting long-term ecological sustainability.

Moreover, UUPLH emphasizes the prudent utilization of natural resources under local jurisdiction. By regulating resource extraction and exploitation in alignment with the RPPLH, local authorities can strike a balance between economic development and environmental preservation. This approach ensures that natural resources are managed responsibly, minimizing ecological degradation and safeguarding future generations' access to vital resources.

Furthermore, UUPLH empowers local governments to take decisive action in controlling pollution and mitigating environmental damage. By enforcing stringent environmental standards and implementing effective pollution control measures, local authorities can protect public health and preserve environmental quality. Additionally, conservation efforts aimed at restoring and maintaining ecosystems play a crucial role in enhancing biodiversity and ecosystem resilience, thereby promoting sustainable development and human well-being.

Therefore, Law Number 32 of 2009 represents a cornerstone in Indonesia's environmental governance framework, empowering local governments to play a proactive role in environmental protection and management. Through comprehensive planning, responsible resource

utilization, pollution control, and conservation efforts, local administrations can fulfill their mandate to safeguard the environment while fostering sustainable development. As custodians of our natural heritage, local authorities must embrace their pivotal role in ensuring the ecological integrity and resilience of our communities for generations to come.

Undoubtedly, regional entities play a pivotal role in environmental preservation. However, in practice, the rights and obligations of regions are outlined in Article 21, Paragraph 6 of Law Number 32 of 2004, which stipulates that "*regions have the entitlement to receive revenue sharing from the exploitation of natural resources and other assets within their territories.*" This provision aims to bolster Local Original Revenue (PAD). Consequently, regions often incentivize investment and industrial development to stimulate economic growth and enhance social welfare. Yet, this strategy inadvertently creates a loophole and fosters indications of environmental rule violations.²⁴

For instance, the operation of Freeport mining in Papua²⁵, coal extraction in Belitung²⁶, and similar activities across the islands of Java,

²⁴ See Hasyim, Moh, and Siti Ruhama Mardhatillah. "Asas Otonomi Daerah dalam Penegakan Hukum terhadap Izin Lingkungan." *Bina Hukum Lingkungan* 5.1 (2020): 40-61; Putra, David Aprizon. "Eksistensi Sistem Hukum Perizinan Kegiatan Pertambangan Dalam Otonomi Daerah Sebagai Salah Satu Instrumen Hukum Hak-Hak Masyarakat." *Legality: Jurnal Ilmiah Hukum* 24.1 (2016): 12-26; Fitriana, Zuhda Mila, Dhea Veranica Isabella, and Lupita Sari. "Konsep Legislasi Hijau Regional (Regional Green Legislation): Mendukung Capaian TPB 2030 Nomor 7 tentang Energi." *Jurnal Hukum Lingkungan Indonesia* 8.2 (2022): 431-454.

²⁵ Resosudarmo, Budy, et al. "Development in Papua after special autonomy." *Regional dynamics in a decentralized Indonesia*. Institute of Southeast Asian Studies (ISEAS), 2014; Astuti, Ade Ayu. "An Analysis of Indonesian Economic Development: Case Study Mining Business in Papua Province." *International Journal of Public Administration, Management and Economic Development* 8.1 (2023): 1-17.

²⁶ Haryadi, D. "Politics of environmental law in relation to mining in Bangka Belitung: A mapping." *IOP Conference Series: Earth and Environmental Science*. Vol. 599. No. 1. IOP Publishing, 2020; Haryadi, Dwi, Ibrahim Ibrahim, and Darwance Darwance. "Environmental regulations (its identification and downstream

Sumatra, and Kalimantan exemplify the environmental degradation resulting from unchecked industrial practices. Such instances underscore the urgent need for robust environmental regulations and enforcement mechanisms to counterbalance economic imperatives with ecological sustainability.

The imperative for regions to secure funding sources for governmental administration often leads to further exploitation of their natural resources. Environmental degradation ensues as regions grant business licenses to investors without due diligence, while public adherence to environmental laws remains inadequate. Moreover, amid the global concern surrounding climate change, local governments appear to lack a comprehensive understanding of its gravity. This oversight allows environmental violations to persist, jeopardizing the sustainability of our ecosystems. Regrettably, regions prioritize short-term economic gains over long-term environmental well-being, with some areas even boasting economic prosperity at the expense of environmental integrity.²⁷

It is evident that the principles of sustainable development have yet to be fully embraced and implemented by regional administrations. As stewards of our environment, local governments must recognize the intrinsic link between environmental sustainability and economic growth. Prioritizing environmental preservation alongside regional development is imperative for ensuring a prosperous and viable future for generations to come.²⁸ Only by adopting a holistic approach that balances economic imperatives with ecological sustainability can regions truly achieve sustainable growth and secure the well-being of their constituents.

implementation in Bangka Belitung)." *E3S Web of Conferences*. Vol. 241. EDP Sciences, 2021.

²⁷ Mensah, Justice. "Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review." *Cogent Social Sciences* 5.1 (2019): 1653531.

²⁸ Akib, Muhammad, and F. X. Sumarja. "Environmental Law Policy as an Approach to Achieve Sustainable Development and Prosperity in an Era of Regional Autonomy." *Environmental Policy and Law* 49.1 (2019): 83-87; Safa, Mohammad. "Environmental quality and regional autonomy in Indonesia." *International Journal of Business and Management* 10.2 (2020): 217-228.

Regulatory Compliance and Environmental Governance: Implementing Licensing Laws in the Era of Regional Autonomy

In the era of regional autonomy, law enforcement pertaining to environmental protection manifests through a myriad of policies and initiatives. Environmental management encompasses a spectrum of actions, ranging from prevention and mitigation of damage and pollution to the restoration of environmental quality. This multifaceted endeavor necessitates the development of diverse policy tools, programs, and activities, complemented by robust environmental management support systems.

Within this framework, policy measures are designed to address a wide array of environmental challenges, including air and water pollution, deforestation, habitat destruction, and biodiversity loss.²⁹ These policies often entail the formulation of regulations, guidelines, and standards aimed at curbing harmful practices, promoting sustainable resource utilization, and safeguarding ecosystems. Additionally, enforcement mechanisms are established to ensure compliance with environmental laws and regulations, thereby deterring illegal activities and holding violators accountable.

Moreover, proactive initiatives are undertaken to enhance environmental resilience and adaptability to climate change. These may include the development of climate action plans, implementation of adaptation strategies, and investment in green infrastructure and renewable energy projects. Collaborative efforts involving government agencies, civil society organizations, academia, and the private sector are essential for the successful implementation of these initiatives.

Furthermore, capacity-building programs are crucial for strengthening the skills and knowledge of environmental professionals,

²⁹ Cleary, Daniel Francis Richard, and Lyndon Devantier. "Indonesia: Threats to the country's biodiversity." *Encyclopedia of Environmental Health* 1 (2011): 187-197; Hughes, Alice C. "Understanding the drivers of Southeast Asian biodiversity loss." *Ecosphere* 8.1 (2017): e01624.

policymakers, and stakeholders involved in environmental management.³⁰ These programs aim to enhance understanding of environmental issues, improve technical expertise in monitoring and enforcement, and promote effective decision-making and policy implementation.

1. National and Regional Policies in Environmental Management

Aligned with Law 32 of 2004 regarding Regional Government and Government Regulation No. 25 of 2000 concerning Government and Provincial Authority in Autonomous Regions, the environmental domain witnesses a significant political acknowledgment through the delegation of authority from the central government to regional entities. This transfer of authority is marked by several key elements:

- a. Elevating the role of regions in environmental management, emphasizing their centrality in decision-making processes and implementation strategies.
- b. Mandating local initiatives in policy formulation, underscoring the necessity for region-specific approaches tailored to local needs, conditions, and priorities.
- c. Fostering interdependence among regions, encouraging collaboration and cooperation in addressing shared environmental challenges and pursuing common objectives.
- d. Embracing a territorial approach to environmental governance, recognizing the interconnectedness of natural systems and the importance of considering spatial dynamics and local contexts in policy development and implementation.

In essence, these provisions empower regions to assume a more active and autonomous role in environmental governance, facilitating a more responsive, contextually relevant, and inclusive approach to addressing environmental issues and promoting sustainable development.

The implications of Law No. 32 of 2004 and PP No. 25 of 2000 on environmental management underscore the pivotal role of regions,

³⁰ Elfithri, Rahmah, Mazlin Bin Mokhtar, and Salmah Zakaria. "The need for awareness raising, advocacy, and capacity building in Integrated Water Resources Management toward sustainable development: A case study in Malaysia." *World Water Policy* 5.1 (2019): 43-54; Hills, Jeremy M., et al. "Capacity building for integrated coastal management in Asia-Pacific: the case for case studies." *Coastal Management* 34.3 (2006): 323-337.

effectively constraining national environmental policies within the framework of regional autonomy. To address this, the State has devised a comprehensive program termed "*natural resources and environmental development*," comprising the following components:

1) Development Program and Enhanced Access to Information on Natural Resources and the Environment

This initiative aims to gather and disseminate comprehensive information on natural resource potential and productivity through inventory, evaluation, and bolstering information systems. The goal is to ensure widespread availability and accessibility of information on natural resources and the environment, including spatial data infrastructure and resource valuations, empowering communities across regions.

2) Program to Enhance the Effectiveness of Natural Resources Management, Conservation, and Rehabilitation

This program focuses on balancing the utilization and preservation of forests, seas, air, water, and minerals. It strives to efficiently and sustainably meet industrial raw material needs while safeguarding conservation areas from damage resulting from uncontrolled resource exploitation.

3) Environmental Damage and Pollution Prevention and Control Program

With the objective of improving environmental quality, this program aims to prevent and mitigate damage or pollution resulting from excessive natural resource utilization, industrial activities, and transportation. The target is to achieve clean and healthy environmental standards in accordance with established quality benchmarks.

4) Institutional Strengthening and Law Enforcement for Natural Resources Management and Environmental Conservation

This initiative seeks to enhance institutional capacities, legal frameworks, and enforcement mechanisms to ensure effective and equitable natural resource management and environmental conservation. It aims to establish robust institutions supported by legal instruments, ensuring fair and consistent law enforcement efforts.

5) Program to Enhance Community Engagement in Natural Resources Management and Environmental Preservation

This program endeavors to boost community participation and advocacy in natural resource management and environmental preservation. It aims to provide communities with the necessary tools and support to engage in policy formulation, decision-making processes, planning, implementation, and monitoring related to resource management and environmental conservation.³¹

The natural resources and environmental development program represent a holistic approach to address environmental challenges, emphasizing information dissemination, resource management, pollution control, institutional strengthening, and community engagement. Through these concerted efforts, the program aims to foster sustainable development practices and preserve environmental integrity across regions.

2. National and Regional Policies in Environmental Law Enforcement

One glaring weakness in environmental law implementation is the enforcement aspect, which warrants thorough examination in this section. Despite the rapid national development aimed at enhancing community welfare, several shortcomings have emerged prominently. Notably, the lack of adherence to regulations by development actors and their disregard for foundational legal principles, particularly in social and environmental domains, have exacerbated environmental issues. To address these challenges and align with the Sustainable Development Action Plan for Environmental Protection and Management, concerted efforts are underway to enhance environmental quality through the development of legal frameworks, compliance mechanisms, and robust enforcement practices, alongside environmental rehabilitation endeavors.

³¹ Haryana, Arif. "Impact Analysis of Strategic Policy of Natural Resources and Environment in the Indonesian Long-term Development Plan of 2005-2025." *The Journal of Indonesia Sustainable Development Planning* 3.2 (2022): 136-148. See also Resosudarmo, Budy P., ed. *The politics and economics of Indonesia's natural resources*. Institute of Southeast Asian Studies, 2005; Nugroho, Wahyu. "Reorienting the Principle of Sustainable Development in Investing Policy Utilizing Natural Resources and Energy in Indonesia." *Indonesian Journal of Energy* 5.1 (2022): 15-24.

Regional policies aimed at mitigating environmental problems, especially those concerning policy and law enforcement, encompass various strategic measures:

- 1) **Local Regulations on the Environment**
Enacting comprehensive local regulations specifically targeting environmental concerns to provide a legal framework for environmental protection and management at the regional level.
- 2) **Strengthening Environmental Institutions**
Bolstering the capacity and effectiveness of environmental institutions to facilitate more efficient and proactive enforcement of environmental regulations.
- 3) **Application of Environmental Management Documents in the Licensing Process**
Incorporating environmental management documents as essential criteria in the licensing process for businesses and activities to ensure compliance with environmental standards.
- 4) **Socialization/Education on Laws, Regulations, and Environmental Knowledge**
Conducting widespread socialization and education campaigns to enhance awareness and understanding of environmental laws, regulations, and sustainable practices among stakeholders and the general public.
- 5) **Enhanced Coordination with Related Agencies and Stakeholders**
Improving the quality and quantity of coordination with relevant government agencies, NGOs, community groups, and other stakeholders to streamline efforts and maximize impact in environmental management.
- 6) **Integrated Oversight of Environmental Law Enforcement**
Implementing integrated oversight mechanisms to ensure consistent and effective enforcement of environmental laws across various sectors and jurisdictions.
- 7) **Formulating Sanctions for Environmental Violations**
Developing clear and stringent forms of sanctions for environmental violations to deter non-compliance and promote accountability among offenders.
- 8) **Improving Human Resource Capacities**

Enhancing the quality and quantity of human resources involved in environmental management through training, capacity-building initiatives, and recruitment of skilled professionals.

9) Increased Funding for Environmental Management

Allocating sufficient financial resources to support environmental management efforts, including enforcement activities, monitoring programs, and conservation initiatives.

By implementing these comprehensive strategies, regions can strengthen their environmental governance frameworks and effectively address the enforcement challenges inherent in environmental law implementation, thus fostering sustainable development and safeguarding environmental integrity for future generations.

Environmental management constitutes a holistic approach aimed at preserving the functionality of the environment. It encompasses a range of policies and practices focused on organizing, utilizing, developing, maintaining, restoring, supervising, and controlling environmental resources and conditions. The term *environment* denotes the entirety of space, encompassing all entities, forces, conditions, and living organisms, including humans, and their behaviors that influence the continuity of life and the well-being of all living beings.

Over time, environmental quality has shown a consistent decline, primarily due to the prevalent disregard for preservation in decision-making processes, resulting in pollution and environmental degradation. These issues not only exacerbate social conflicts but also precipitate environmental disputes. To address these challenges, robust legal frameworks for environmental protection are essential. Initially regulated by Law No. 4 of 1982, experiences with its enforcement revealed shortcomings. Consequently, revisions were made, leading to the enactment of Law No. 23 of 1997 concerning Environmental Management, supplemented by subsequent implementing regulations.

This legislation stands as a potent instrument for environmental preservation. Its application is fortified by sectoral laws and regulations, recognizing that effective environmental management necessitates coordinated efforts across various sectors. Hence, it is complemented by sector-specific legislation such as Law No. 22 of 2001 concerning Gas and Natural Resources, Law No. 41 of 1999 concerning Forestry, and Law

No. 24 of 1992 concerning Spatial Planning. Further elaboration and enforcement are provided through government regulations, presidential decrees, ministerial decrees, regional regulations, and governor decrees, ensuring comprehensive coverage and implementation across all relevant fields and jurisdictions.

Furthermore, the existence of PLH Law no. 23 of 1997 was considered insufficient to solve the problem of environmental damage, because in 2009, after going through a fairly long process, the Law on Environmental Protection and Management (PPLH) no. 32 of 2009 was deemed insufficient to solve the problem of environmental damage, because in 2007. Against the PPLH Law, many ask: what is new with the Law? To this, of course, cannot be answered briefly but can also be given a simple "scientific kerling". In terms of title, it has clearly changed from UUPH (1997) to PPLH Law (2009). The PPLH Law uses the title of environmental protection and management. This title was agreed by the House of Representatives of the Republic of Indonesia and the Government to be read in one breath.

The commitment demonstrated by the two institutions responsible for formulating the PPLH Law underscores the profound significance of the term "*protection*" within the realm of environmental management. Despite theoretical critiques suggesting that the term "*environmental management*" inherently encompasses the notion of protection and therefore requires no additional emphasis, I argue that the inclusion of the word "protection" serves to underscore the fundamental priority of safeguarding our environment. In essence, it acts as a symbolic baptismal or pilgrimage name, signifying the overarching goal of environmental management.

Just as the UUPH underwent revisions and legal reforms, akin to a transformative journey akin to a pilgrimage, culminating in its rechristening as a new entity under the banner of "*environmental protection and management*," the core essence of environmental management remains intact. However, the incorporation of "*protection*" as an integral

component imbues the concept with renewed significance and emphasis, highlighting the imperative to prioritize environmental preservation.³²

Therefore, the juxtaposition of "*protection and management*" within the same discourse underscores the inseparable connection between the two, with protection serving as the foundational principle guiding environmental management efforts in Indonesia. Thus, the phrase "*protection and management*" resonates as a unified call to action, symbolizing our collective commitment to safeguarding our natural environment for future generations.

Numerous amendments have been made to the PPLH Law, spurred by the enhanced constitutional rights to the environment as mandated by the 1945 Constitution and the evolving landscape of regional autonomy. The preamble of the law emphasizes that access to a clean and healthy environment is not only a fundamental human right but also a constitutional entitlement bestowed upon every Indonesian citizen. Consequently, it imposes a collective obligation upon the state, government, and all stakeholders to undertake comprehensive environmental protection and management endeavors in pursuit of sustainable development goals. This concerted effort aims to ensure that the Indonesian environment continues to serve as a vital resource and sustenance for the Indonesian populace and all other living organisms.

Furthermore, as outlined in its General Explanation, this Law also addresses the following key aspects:

1. Ensuring the integrity of environmental management elements.
2. Clarifying the division of authority between the central government and regional administrations.
3. Enhancing environmental control efforts.
4. Strengthening measures to prevent pollution and environmental damage, including strategic environmental assessment, spatial planning, environmental quality standards, criteria for assessing

³² Yahman, Yahman, and Azis Setyagama. "Government policy in regulating the environment for development of sustainable environment in Indonesia." *Environment, Development and Sustainability* 25.11 (2023): 12829-12840; Rs, Iza Rumesten, et al. "Protection of Human Rights Against the Environment in the Indonesian Legal System." *Journal of Law and Sustainable Development* 11.10 (2023): e570-e570.

environmental damage, environmental impact assessments (EIAs), environmental management and monitoring, licensing procedures, environmental economic instruments, regulations grounded in environmental considerations, environmentally-focused budgeting, environmental risk analysis, and other instruments aligned with advancements in science and technology.

5. Utilizing permits as operational instruments.
6. Adopting ecosystem approaches.
7. Establishing certainty in responding to and anticipating developments in the global environment.
8. Enhancing environmental democracy through improved access to information, participation, and justice, and reinforcing community rights in environmental protection and management.
9. Clarifying and strengthening enforcement mechanisms encompassing civil, administrative, and criminal laws.
10. Bolstering the effectiveness and responsiveness of environmental protection and management institutions.
11. Empowering environmental supervisory officials and environmental civil servant investigators by enhancing their authority.

Additionally, this Law confers extensive authority upon the Minister to wield all government powers pertaining to environmental protection and management and to coordinate with other agencies. Furthermore, it grants local governments significant autonomy to execute environmental protection and management initiatives within their respective jurisdictions, particularly in areas not covered by Law Number 23 of 1997 concerning Environmental Management.

Hence, an institution operating under this Law must transcend mere policy determination and coordination. It necessitates an organization endowed with the mandate to formulate, execute, and oversee environmental protection and management policies comprehensively. Moreover, this institution should possess the requisite authority to oversee natural resources for conservation purposes. Adequate funding support from both the state budget for the central government and the regional budget for local administrations is imperative to ensure the effective fulfillment of the institution's core duties and functions.

Strategic Measures for Mitigating Environmental Damage in the Regional Autonomy Era

In the era of regional autonomy in Indonesia, the delegation of authority from the central government to local administrations has significantly transformed the landscape of governance. This shift has empowered regional governments to manage their own affairs, including environmental protection and management, in accordance with the needs and aspirations of their communities. However, alongside the opportunities presented by regional autonomy, there have also emerged challenges, particularly in addressing environmental degradation and damage.³³

Despite the initial objectives of regional autonomy to foster economic growth and equitable development, unchecked exploitation of natural resources and lax enforcement of environmental regulations have led to significant environmental degradation in many regions. This trend underscores the urgent need for strategic steps to mitigate environmental damage and promote sustainable development within the framework of regional autonomy.

In the context of regional autonomy in Indonesia, natural resources assume a paramount role as the bedrock of regional prosperity and development. These resources, when harnessed effectively, serve as economic drivers, fostering community welfare and facilitating the implementation of regional autonomy objectives. However, the utilization of these resources often precipitates environmental degradation, leading to a violation of environmental protection legislation. In response, it becomes imperative for the government to explore alternative strategies, necessitating a concerted effort from regional decision-makers and the enhancement of technical capabilities to navigate the intricacies of resource management.

³³ Muhyidin, Ali. "Guarding Central Government Control over Forest: Forest Governance in the Post Decentralization Indonesia." *Jurnal Politik* 4.1 (2019). See also Barr, Christopher M., et al., eds. *Decentralization of forest administration in Indonesia: Implications for forest sustainability, economic development, and community livelihoods*. CIFOR, 2006.

A pivotal strategic measure entails a rigorous evaluation of regional environmental management policies. An ideal policy framework should meticulously consider multiple dimensions, encompassing economic growth, social resilience, ecological integrity, and the preservation of resources for future generations. Through a comprehensive approach, regional administrations can chart a sustainable trajectory that reconciles development imperatives with environmental conservation, thus ensuring the well-being of both present and future communities.

The efficacy of such policies inherently hinges upon the availability of competent human resources. However, it is widely acknowledged that a pervasive challenge faced by nearly all regions is the deficiency in human capital to effectively manage a sustainable environment-driven economy. The exploitation of natural resources necessitates a harmonious balance with proficient human resources capable of orchestrating their sustainable utilization. While abundant natural resources hold promise for augmenting local original income (PAD), their full potential can only be realized with the support of skilled personnel. Without the presence of quality human resources, the realization of prosperity for local communities remains uncertain.

Regional autonomy inherently carries the potential to ignite conflicts among regions, particularly concerning natural resource commodities sourced from ecosystem areas spanning multiple provinces, districts, and cities. Consequently, effective coordination between regions becomes imperative in the implementation of regional autonomy.

To address the issue of arbitrary regional exploitation of the environment, it is essential to bolster the empowerment of bureaucrats in the regions through several strategic initiatives:

1. Reinforcing the commitment to empower environmental institutions in districts and cities, encompassing urgent environmental concerns, priority program delineation, human resource augmentation, and collaboration with environmental stakeholders.
2. Implicating the strengthening of environmental institutions at all levels of SKPD (Regional Apparatus Organization).
3. Initiating renegotiations with business entities found to be in violation of environmental regulations and implicated in environmental damage.

4. Imposing stringent sanctions against officials or private individuals found culpable of perpetrating environmental destruction.
5. Enforcing rigorous supervision and stringent licensing protocols for business entities engaged in natural resource exploitation.

By undertaking these measures, it is anticipated that the implementation of regional autonomy will be steered toward alignment with environmental principles, thereby mitigating the risk of environmental degradation and conflict escalation.

Conclusion

In conclusion, while regional autonomy was intended to empower local governments to effectively manage their territories and promote equitable development, its implementation has fallen short of its original objectives. Economic growth driven by natural resource exploitation has led to environmental degradation and ecosystem disruption, contrary to the principles of sustainable development outlined in law number 32 of 2009. The lax enforcement of environmental regulations and the issuance of business licenses for natural resource exploitation without adequate oversight further exacerbate these challenges. As a result, the true essence of regional autonomy, aimed at fostering community prosperity, risks being obscured. It is imperative that stakeholders prioritize environmental preservation to ensure the availability of resources for future generations and uphold the foundational principles of regional autonomy. Together, concerted efforts must be made to address these issues and steer regional development toward a more sustainable and equitable future.

References

- Afkarina, Kunny Izza Indah, Sindhung Wardana, and Poerborini Damayanti. "Coal mining sector contribution to environmental conditions and human development index in East Kalimantan Province." *Journal of Environmental Science and Sustainable Development* 2.2 (2019): 192-207.
- Akib, Muhammad, and F. X. Sumarja. "Environmental Law Policy as an Approach to Achieve Sustainable Development and Prosperity in an

- Era of Regional Autonomy." *Environmental Policy and Law* 49.1 (2019): 83-87.
- Andjarwati, Tri, et al. "Analysis of local own revenue and balancing funds on the financial performance." *International Journal of Economics and Finance Studies* 13.1 (2021): 235-250.
- Ansell, Christopher, and Jane Gingrich. "Trends in decentralization." *Democracy transformed* 1 (2003): 140-64.
- Armunanto, A., S. Nadir, and D. Ekawaty. "Environmental dilemma under implementation of Indonesian regional autonomy." *IOP Conference Series: Earth and Environmental Science*. Vol. 343. No. 1. IOP Publishing, 2019.
- Astuti, Ade Ayu. "An Analysis of Indonesian Economic Development: Case Study Mining Business in Papua Province." *International Journal of Public Administration, Management and Economic Development* 8.1 (2023): 1-17.
- Astuti, Amelia Dwi, and Ika Riswanti Putranti. "Implikasi Kebijakan Indonesia dalam Menangani Kasus Pencemaran Lingkungan oleh PT. Freeport terhadap Keamanan Manusia di Mimika Papua." *Journal of International Relations Universitas Diponegoro* 4.3 (2018): 547-555.
- Badrudin, Rudy, and Baldrick Siregar. "The evaluation of the implementation of regional autonomy in Indonesia." *Economic Journal of Emerging Markets* (2015): 1-11.
- Barr, Christopher M., et al., eds. *Decentralization of forest administration in Indonesia: Implications for forest sustainability, economic development, and community livelihoods*. CIFOR, 2006.
- Basiago, Andrew D. "Economic, social, and environmental sustainability in development theory and urban planning practice." *Environmentalist* 19.2 (1998): 145-161.
- Butt, Simon. "Regional Autonomy and Legal Disorder: The Proliferation of Local Laws in Indonesia." *Singapore Journal of Legal Studies* (2010): 1-21.
- Cleary, Daniel Francis Richard, and Lyndon Devantier. "Indonesia: Threats to the country's biodiversity." *Encyclopedia of Environmental Health* 1 (2011): 187-197.

- Dermawan, Ahmad, and Ida Aju Pradnja Resosudarmo. "Forests and regional autonomy: The challenge of sharing the profits and pains." *Which way forward*. Routledge, 2010, pp. 325-357.
- Devas, Nick. "Indonesia: what do we mean by decentralization?." *Public Administration and Development: The International Journal of Management Research and Practice* 17.3 (1997): 351-367.
- Elfithri, Rahmah, Mazlin Bin Mokhtar, and Salmah Zakaria. "The need for awareness raising, advocacy, and capacity building in Integrated Water Resources Management toward sustainable development: A case study in Malaysia." *World Water Policy* 5.1 (2019): 43-54.
- Firmanda, Hengki, and M. Alpi Syahrin. "Mitigation of Environmental Damage Through Natural Resources Management Contracts (Eco-Contract Perspective)." *Journal of Applied Engineering and Technological Science (JAETS)* 4.2 (2023): 765-772.
- Fitriana, Zuhda Mila, Dhea Veranica Isabella, and Lupita Sari. "Konsep Legislasi Hijau Regional (Regional Green Legislation): Mendukung Capaian TPB 2030 Nomor 7 tentang Energi." *Jurnal Hukum Lingkungan Indonesia* 8.2 (2022): 431-454.
- Haryadi, D. "Politics of environmental law in relation to mining in Bangka Belitung: A mapping." *IOP Conference Series: Earth and Environmental Science*. Vol. 599. No. 1. IOP Publishing, 2020.
- Haryadi, Dwi, Ibrahim Ibrahim, and Darwance Darwance. "Environmental regulations (its identification and downstream implementation in Bangka Belitung)." *E3S Web of Conferences*. Vol. 241. EDP Sciences, 2021.
- Haryana, Arif. "Impact Analysis of Strategic Policy of Natural Resources and Environment in the Indonesian Long-term Development Plan of 2005-2025." *The Journal of Indonesia Sustainable Development Planning* 3.2 (2022): 136-148.
- Hasyim, Moh, and Siti Ruhama Mardhatillah. "Asas Otonomi Daerah dalam Penegakan Hukum terhadap Izin Lingkungan." *Bina Hukum Lingkungan* 5.1 (2020): 40-61.
- Heryandi, Heryandi. "Environmental Law Policy as an Approach to Achieve Sustainable Development and Prosperity in an Era of Regional Autonomy." *Environmental Policy and Law* (2018): 83-87.

- Hills, Jeremy M., et al. "Capacity building for integrated coastal management in Asia-Pacific: the case for case studies." *Coastal Management* 34.3 (2006): 323-337.
- Holtzappel, Coen JG, and Martin Ramstedt, eds. *Decentralization and regional autonomy in Indonesia: implementation and challenges*. Institute of Southeast Asian Studies, 2009.
- Hughes, Alice C. "Understanding the drivers of Southeast Asian biodiversity loss." *Ecosphere* 8.1 (2017): e01624.
- Jaya, Wihana Kirana, and Howard Dick. "The latest crisis of regional autonomy in historical perspective." *Indonesia Today: Challenges of History* (2001): 216-228.
- Kotijah, Siti, and Ine Ventyrina. "Preventive regulations to remove environmental damage to mangrove ecosystem in East Kalimantan, Indonesia." *International Journal of Research in Law, Economic and Social Sciences* 1.1 (2019).
- Kurniawan, Robert, et al. "Eco-environment vulnerability assessment using remote sensing approach in East Kalimantan, Indonesia." *Remote Sensing Applications: Society and Environment* 27 (2022): 100791.
- Legge, John D. *Problems of regional autonomy in contemporary Indonesia*. Equinox Publishing, 2009.
- Lisdiyono, Edy. "The cancellation of environmental license of pt. Semen indonesia: A strategic environmental assessment." *Hasanuddin Law Review* 3.3 (2018): 322-333.
- López, Ramón, and Michael A. Toman, eds. *Economic development and environmental sustainability: new policy options*. OUP Oxford, 2006.
- Mensah, Justice. "Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review." *Cogent Social Sciences* 5.1 (2019): 1653531.
- Moonti, Roy Marthen. "Regional Autonomy in Realizing Good Governance." *Substantive Justice International Journal of Law* 2.1 (2019): 43-53.
- Muharram, Samahuddin, et al. "Politics of Ecology on Environmental Management in Regional Autonomy Perspective in Banjar Regency." *International Journal of Politic, Public Policy and Environmental Issues* 1.2 (2021): 80-87.

- Muhyidin, Ali. "Guarding Central Government Control over Forest: Forest Governance in the Post Decentralization Indonesia." *Jurnal Politik* 4.1 (2019).
- Muin, Fatkhul. "Otonomi daerah dalam perspektif pembagian urusan pemerintah-pemerintah daerah dan keuangan daerah." *Fiat Justisia* 8.1 (2014): 69-79.
- Nasution, Anwar. "The government decentralization program in Indonesia." *Central and local government relations in Asia*. Edward Elgar Publishing, 2017, pp. 276-305.
- Nugroho, Wahyu. "Reorienting the Principle of Sustainable Development in Investing Policy Utilizing Natural Resources and Energy in Indonesia." *Indonesian Journal of Energy* 5.1 (2022): 15-24.
- Osborne, Sam. "Learning from Anangu histories: Population centralisation and decentralisation influences and the provision of schooling in tri-state remote communities." *The Australian Journal of Indigenous Education* 44.2 (2015): 127-138.
- Putra, David Aprizon. "Eksistensi Sistem Hukum Perizinan Kegiatan Pertambangan Dalam Otonomi Daerah Sebagai Salah Satu Instrumen Hukum Hak-Hak Masyarakat." *Legality: Jurnal Ilmiah Hukum* 24.1 (2016): 12-26.
- Resosudarmo, Budy P., ed. *The politics and economics of Indonesia's natural resources*. Institute of Southeast Asian Studies, 2005.
- Resosudarmo, Budy, et al. "Development in Papua after special autonomy." *Regional dynamics in a decentralized Indonesia*. Institute of Southeast Asian Studies (ISEAS), 2014.
- Ristanti, Yulia Devi, and Eko Handoyo. "Undang-undang otonomi daerah dan pembangunan ekonomi daerah." *Jurnal RAK (Riset Akuntansi Keuangan)* 2.1 (2017): 115-122.
- Rondinelli, Dennis A. "Decentralization and development." *International development governance*. Routledge, 2017, pp. 391-404.
- Rondinelli, Dennis A., John R. Nellis, and G. Shabbir Cheema. "Decentralization in developing countries." *World Bank staff working paper* 581 (1983): 13-28.
- Roziqin, Ali. "Environmental policy of mangroves management in Rembang Regency." *E3S Web of Conferences*. Vol. 31. EDP Sciences, 2018.

- Rs, Iza Rumesten, et al. "Protection of Human Rights Against the Environment in the Indonesian Legal System." *Journal of Law and Sustainable Development* 11.10 (2023): e570-e570.
- Safa, Mohammad. "Environmental quality and regional autonomy in Indonesia." *International Journal of Business and Management* 10.2 (2020): 217-228.
- Safitri, Sani. "Sejarah perkembangan otonomi daerah di Indonesia." *Criksetra: Jurnal Pendidikan Sejarah* 5.1 (2016).
- Sambanis, Nicholas, and Branko Milanovic. "Explaining regional autonomy differences in decentralized countries." *Comparative Political Studies* 47.13 (2014): 1830-1855.
- Sari, Purnama, R. Rindu Garvera, and Aan Anwar Sihabudin. "What is the Contribution of Local Original Revenue to Regional Financial Independent?." *JPAS (Journal of Public Administration Studies)* 3.2 (2018): 78-81.
- Sartika, Dewi. "Decentralization and regional autonomy in the industrial revolution 4.0 era." *MICEB: Mulawarman International Conference on Economics and Business*. Vol. 2. No. 1. 2019.
- Setiawan, Bakti, and Sudharto P. Hadi. "Regional autonomy and local resource management in Indonesia." *Asia Pacific Viewpoint* 48.1 (2007): 72-84.
- Setiawan, Hendy, Genut Wahyu Widiono, and Galuh Hikmah. "The Formation of the New Autonomous Region of Papua and Welfare Guarantees in the Decentralization Policy." *Jurnal Borneo Administrator* 19.3 (2023): 319-332.
- Seymour, Richard, and Sarah Turner. "Otonomi daerah: Indonesia's decentralisation experiment." *New Zealand Journal of Asian Studies* 4 (2002): 33-51.
- Steinberg, Florian. "Jakarta: Environmental problems and sustainability." *Habitat International* 31.3-4 (2007): 354-365.
- Sukarniati, Lestari, and Firsty Ramadhona Amalia Lubis. "Determinants of Local Original Income The Era of Special Autonomy for the Government of Aceh Province." *Optimum: Jurnal Ekonomi dan Pembangunan* 11.1 (2021): 92-106.

- Talitha, Tessa, Tommy Firman, and Delik Hudalah. "Welcoming two decades of decentralization in Indonesia: a regional development perspective." *Territory, Politics, Governance* 8.5 (2020): 690-708.
- Taufiqurokhman, Endang Sulastri, and Harits Hafiid. "Indonesian Governments Policy on Environmental Law in the Era of Regional Autonomy." *Systematic Reviews in Pharmacy* 11.12 (2020): 1203-1209.
- Turner, Mark. "Regional autonomy and the state in Indonesia." *Autonomy, self-governance and conflict resolution: Innovative approaches to institutional design in divided societies* 33 (2005): 186.
- Yahman, Yahman, and Azis Setyagama. "Government policy in regulating the environment for development of sustainable environment in Indonesia." *Environment, Development and Sustainability* 25.11 (2023): 12829-12840.
- Yakub, Andi, Ahmad Bashawir Abdul Ghani, and Mohammad Syafiâ. "Urgency of political decentralization and regional autonomy in Indonesia: Local perspectives." *Journal of International Studies* 14 (2018): 141-150.
- Yuliadi, Imamudin. "Determinants of Local Government Revenue: A Survey of Regional Economic Development in Indonesia." *Quality-Access to Success* 24.193 (2023).

Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all.

Ban Ki-moon

DECLARATION OF CONFLICTING INTERESTS

The authors state that there is no conflict of interest in the publication of this article.

FUNDING INFORMATION

None

ACKNOWLEDGMENT

The author extends gratitude to PPIM Saudi Arabia (Overseas Indonesian Students Association) for their invaluable and unwavering support throughout the research process. Special appreciation is also extended to the Nahdlatul Ulama Disaster Management and Climate Change Institute of Indonesia (LPBINU) for graciously providing crucial information that enriched the study.

HISTORY OF ARTICLE

Submitted : November 21, 2022

Revised : February 21, 2023; July 29, 2023; December 21, 2023

Accepted : January 10, 2024

Published : January 31, 2024