

THE RECONSTRUCTING LEGAL POLICIES OF THE MANAGEMENT AND CONTROL OF ENVIRONMENTAL IMPACTS FOR INDUSTRIAL AREAS IN URBAN OF CENTRAL JAVA

Agus Widodo

Universitas 17 Agustus 1945 (UNTAG) Semarang, Indonesia

aguswido.untag@gmail.com

Mohammad Belayet Hossain

Universiti Utara Malaysia, Kedah, Malaysia

mbhossain.uum@gmail.com

Abstract

The pace of development is often faced with the challenge of decreasing the quality of a healthy environment. Meanwhile, the management and control of impacts must continue to be pursued properly and committed to maintaining health and environmental sustainability. This article aims to describe how environmental management in the city of Semarang is amid the rapid industrial growth in the area and what obstacles and challenges are faced. This study uses an empirical juridical approach with qualitative analysis techniques. The study results indicate that the strategy for controlling environmental impacts includes developing priority programs and strategies. The program can be measured in a certain time with clear benchmarks of success, structuring regulations in the field of pollution control, increasing the commitment of decision-makers in government and society, and community participation in environmental impact control programs. On the other hand, the function of Central Java's Environmental Impact Control Agency (Bapedalda) is to monitor the implementation of Environmental Feasibility Study (EFS), evaluate environmental impact control activities and EFS implementation in the region, provide recommendations for determining EFS approval, make efforts to inform EFS, carry out technical guidance and supervision of environmental impact control, restore the environmental quality of life and control pollution and environmental damage.

Keywords: *Development; Environmental; Industrialization, Management; Policy.*

A. INTRODUCTION

The development in many countries has resulted in various advances in various fields, including technology, production, management, and information. All of them have improved the quality of human life. Indonesia was founded with a clear objective formulated in the Preamble to the 1945 Constitution in the fourth paragraph: protecting the entire Indonesian nation, advancing public welfare, educating the nation, and implementing world order. This objective is implicit in the 1945 Constitution's articles, such as article 33. The 1945 Constitution, in article 33, paragraph (3), provides

instructions that the earth, water, and natural resources contained therein are the principles of the people's prosperity, so that they must be controlled by the state to be used for the greatest prosperity of the people. The long-term direction of development is aimed at the development of the Indonesian people as a whole and the development of the entire Indonesian society¹. It means that development does not only pursue outward or inward progress but harmony and balance between the outer and the inner. The Indonesian people want harmony in the relationship between humans and their God, between human beings, between humans and the surrounding natural environment, harmonious relations between nations, and harmony between the ideals of life in this world and the pursuit of happiness in the hereafter².

To increase the prosperity of the people, development needs to be carried out in a planned manner because development activities are activities that change the environment. It can heavily impact the basic structure of the ecosystem in the form of disruption of the balance between ecosystem components and in the form of pollution that causes damage to the functioning of natural processes in the ecosystem³. This damage can disrupt human survival. Therefore, in the development process, there is an unfavourable or negative impact on the environment. Thus, the efforts must be made to eliminate or reduce it so that the environmental conditions become harmonious and balanced again⁴.

To carry out environmentally sound development, a legal instrument is needed, namely environmental law. The law governing environmental issues in Indonesia is regulated in Act No. 22 of 2021 concerning the Implementation of Environmental Protection and Management⁵. Environmentally sound sustainable development is the political will to build without destroying what is outlined in environmental policies and requires legal instruments in the form of environmental laws and regulations⁶. The use of law as a tool is based on several advantages; namely, it is rational, integrative, has legitimacy and sanctions, and is supported by the availability

1 John F. McCarthy and Kathryn Robinson, *Land, Economic Development, Social Justice and Environmental Management in Indonesia: The Search for The People's Sovereignty, Land and Development in Indonesia: Searching for The People's Sovereignty*, page. 1-34, 2016.

2 Satjipto Raharjo, *Hukum Dan Masyarakat*, Angkasa, Bandung, 1984;

3 Mas Achmad Santosa and Karl Fjellstrom, The Indonesian Environmental Management Act of 1997, *Asia Pac. J. Env'tl. L.*, Vol. 2, page. 366, 1997; Adiguna Bagas Waskito Aji, Puji Wiyatno, Ridwan Arifin and Ubaidillah Kamal, Social Justice on Environmental Law Enforcement in Indonesia: The Contemporary and Controversial Cases, *The Indonesian Journal of International Clinical Legal Education*, Vol. 2, No. 1, page. 57-72, 2020.

4 Koesnadi Hardjosoemantri, *Hukum Tata Lingkungan*, UGM Press, Yogyakarta, 2005; Sebastian De Royer, Meine Van Noordwijk and J. M. Roshetko, Does Community-based Forest Management in Indonesia Devolve Social Justice or Social Costs?, *International Forestry Review*, Vol. 20, No. 2, page. 167-180, 2018

5 Dwi Febriyanti, Sartika Nur Aini, Alya Vena Resta and Raka Bagaskara PKP, Fungsi AMDAL Dalam Pengendalian Kerusakan dan Pencemaran Lingkungan Setelah Diundangkannya UU Cipta Kerja, *Widya Pranata Hukum: Jurnal Kajian dan Penelitian Hukum*, Vol. 3, No. 2, page. 115-133, 2021.

6 Bakti Setiawan and Sudharto P. Hadi, Regional autonomy and local resource management in Indonesia, *Asia Pacific Viewpoint*, Vol. 48, No. 1, page. 72-84, 2007

of implementation mechanisms. Thus, solving environmental problems is not based solely on theory but is supported by political will and the enforcement of legal instruments⁷.

Control of natural resources by the state means giving the government the authority to regulate and develop environmental management policies⁸. The Minister of Environmental Affairs leads environmental management policies at the national and sectoral levels in the hands of various ministries and non-departmental government institutions. At the same time, in the regions, it is carried out under the coordination of the regional head. Since the Minister only coordinates, the implementation is left to the Environmental Impact Management Agency. Because many environmental problems occur in the regions, the Regional Environmental Impact Management Agency is formed at both the provincial and district/city levels⁹.

Because environmental problems are quite complex, Semarang City has also formed a Regional Environmental Impact Management Agency. The Regional Environmental Impact Management Agency of Semarang City has the task of supervising and monitoring companies so as not to cause negative impacts on the environment. Even though a set of regulations supports it, there is still pollution and environmental destruction in various industries. Based on the background of this problem, this article aims to analyze environmental management in Semarang, and the obstacles faced too.

The focus of this study differs from previous research which focuses more on the analysis of environmental impact management and control in Indonesia which is mostly related to natural resource extraction such as coal, palm oil, marine resource and mining.¹⁰ In addition, this research is

7 Siti Sundari Rangkuti, *Hukum dan Masalah Lingkungan Hidup*, Bina Cipta, 2000; Ahmad Jazuli, *Dinamika Hukum Lingkungan Hidup dan Sumber Daya Alam dalam Rangka Pembangunan Berkelanjutan*, *Jurnal Rechts Vinding: Media Pembinaan Hukum Nasional*, Vol. 4, No. 2, page. 181-197, 2015; Dindin M. Hardiman, *Asas Ultimum Remidium Dalam Penegakan Hukum Administrasi Perlindungan dan Pengelolaan Lingkungan Hidup*, *Jurnal Ilmiah Galuh Justisi*, Vol. 4, No. 2, 2017, page. 257-271.

8 Shakeb Afsah, Benoit Laplante and David Wheeler, *Regulation in The Information Age: Indonesian Public Information Program for Environmental Management*, In *Governance Innovations in the Asia-Pacific Region*, Routledge, London, 2019, p. 205-218.

9 Ega Rijal Mahardika and Muhammad Azhary Bayu, *Legal Politics of Indonesian Environmental Management : Discourse Between Maintaining Environmental Sustainability and Economic Interests*, *Indonesian Journal of Environmental Law and Sustainable Development*, Vol. 1, No. 1, page, 1-28, 2022; Andriansyah, Endang Sulastri and Evi Satispi, *The role of Government Policies in Environmental Management*, *Research Horizon*, Vol. 1, No. 3, page. 86-93, 2021.

10 Syafiq, M., *Improving The Effectiveness of Environmental Impact Assessment in Indonesia Regarding The Protection of The Marine Environment From Industrial Pollution*, *Journal of Environmental Assessment Policy and Management*, Vol. 17, No. 3, 2015; Nasution, M. A., Wibawa, D. S., Ahamed, T., & Noguchi, R., *Comparative Environmental Impact Evaluation of Palm Oil Mill Effluent Treatment Using A Life Cycle Assessment Approach: A Case Study Based on Composting and A Combination for Biogas Technologies in North Sumatera of Indonesia*, *Journal of Cleaner Production*, Vol. 184, 2018, page.1028-1040.; Miteva, D. A., Loucks, C. J., & Pattanayak, S. K., *Social and Environmental Impacts of Forest Management Certification in Indonesia*, *PLoS one*, Vol. 10, No. 7, 2015; Handayani, I. G. A. K. R.,

different from other research that focuses on legal aspects on spatial policy for residential development, public development and industry.¹¹ The main focus of this research is to investigate the existing regulatory and statutory authorities in dealing with environmental issues, particularly environmental impact analysis, of well-established industrial estates in Central Java. Specifically, this focus becomes an important point of the novelty of this study which tries to reconstruct legal policies related to the urban development of environmentally friendly industrial areas. In addition, the novelty of this research is the points that compile issues of political authority, legal administration and the function of stakeholders in realizing industrial areas that comply with environmental regulations and laws. In turn, it is desirable to become a substantial legal foothold to mediate development issues in urban areas, namely balancing the interests between intensifying industrialization, while at the same time, ensuring environmental sustainability as an important part of the manifestation of the Sustainable Development Goals.

B. RESEARCH METHODS

This study uses an empirical juridical approach. Applied empirical juridical approach means examining the implementation or implementation of positive legal provisions and factual contracts in every particular legal event that occurs in society¹². This research was conducted by Semarang's Environmental Impact Control Agency (*Bapedalda*). Data sources are obtained from library research using library techniques, including primary, secondary, and tertiary legal materials. The analysis used in this study is an analysis of qualitative data in the form of descriptions. The data are arranged systematically and in detail and are then analyzed qualitatively to describe the study's results¹³.

Sulistiyono, A., Leonard, T., Gunardi, A., & Najicha, F. U., Environmental Management Strategy in Mining Activities in Forest Area Accordance with The Based Justice in Indonesia, *Journal of Legal, Ethical and Regulatory Issues*, Vol. 21, No. 2, 2018, page. 1-8.

- 11 Bedner, A., Consequences of decentralization: Environmental Impact Assessment and Water Pollution Control in Indonesia. *Law & Policy*, Vol. 32, No. 1, 2010, page. 38-60; Handayani, W., Chigbu, U. E., Rudiarto, I., & Putri, I. H. S., Urbanization and Increasing Flood Risk in the Northern Coast of Central Java—Indonesia: An Assessment Towards Better Land Use Policy and Flood Management, *Land*, Vol. 9, No. 10, 2020, page.343; Rukmana, D., The change and transformation of Indonesian spatial planning after Suharto's new order regime: The Case of the Jakarta Metropolitan Area. *International Planning Studies*, Vol. 20, No. 4, 2015, page.350-370.; Nastiti, F. N., & Giyarsih, S. R., Green Open Space in Urban Areas: A Case in the Government Office of Boyolali, Indonesia, *Regional Science Inquiry*, Vol. 11, No. 1, 2019, page.19-28.; Nurhidayah, L., & McIlgorm, A., Coastal Adaptation Laws and The Social Justice of Policies to Address Sea Level Rise: an Indonesian Insight, *Ocean & Coastal Management*, Vol. 171, 2019, page.11-18.
- 12 Adam Podgórecki and Christopher J. Whelan, eds., *Sociological Approaches to Law* (Taylor & Francis, 1981; Satjipto Rahardjo, *Sosiologi Hukum: Perkembangan Metode dan Pilihan Masalah*, Muhammadiyah University Press, Surakarta, 2002
- 13 Kornelius Benuf and Muhamad Azhar, Metodologi Penelitian Hukum Sebagai Instrumen Mengurai Permasalahan Hukum Kontemporer, *Gema Keadilan*, Vol. 7, No. 1, page. 20-33, 2020.

C. RESULTS AND DISCUSSION

1. Progressive Environmental Law in the midst of Economic Development-based Environmental Damage

By the nature of the Republic of Indonesia as a state of law, the development of the Indonesian environmental management legal system must be given a clear, firm, and comprehensive legal basis to ensure legal certainty for such management efforts. The legal basis is based on the principles of environmental law, and everyone's compliance with these principles is entirely based on archipelagic insight, the Environmental Law. The 1945 Constitution in Article 33, paragraph (3) provides instructions that the earth, water, and natural resources contained therein are the main points of the people's prosperity, so they must be controlled by the state to be used for the greatest prosperity of the people. The long-term direction of development is aimed at the development of the Indonesian people as a whole and the development of the entire Indonesian society¹⁴. It means that development does not only pursue outward or inward progress but harmony and balance between the outer and the inner¹⁵.

The Indonesian people want harmony in the relationship between humans and their God, between human beings, between humans and the surrounding natural environment, harmonious relations between nations, and harmony between the ideals of life in this world and the pursuit of happiness in the hereafter¹⁶. To increase the prosperity of the people, development needs to be carried out in a planned manner because development activities are activities that change the environment, which can affect the basic structure of the ecosystem in the form of disruption of the balance between ecosystem components and in the form of pollution that causes damage to the functioning of natural processes in the ecosystem¹⁷. This damage can disrupt human survival. The risks posed by development can be in the form of:

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- 14 John F. McCarthy and Kathryn Robinson eds, *Land and Development in Indonesia: Searching for The People's Sovereignty*, ISEAS-Yusof Ishak Institute, Heng Mui Keng Terrace, 2016; John F. McCarthy ed, *Land and development in Indonesia*, Flipside Digital Content Company Inc., 2017
 - 15 Bevaola Kusumasari and Quamrul Alam, Local Wisdom-based Disaster Recovery Model in Indonesia, *Disaster Prevention & Management*, Vol. 21, No. 3, 2012, page. 351-369; Tania Murray Li, *Land and Development in Indonesia: Searching for the People's Sovereignty*. Edited by John F. McCarthy, Kathryn Robinson, *Pacific Affairs*, Vol. 90, No. 3, page. 630-632, 2017.
 - 16 Zainal Abidin Bagir, The importance of religion and ecology in Indonesia, *Worldviews: Global Religions, Culture, and Ecology*, Vol. 19, No. 2, page. 99-102, 2015.
 - 17 Alef Theria Wasim, Religious Ecology and the Study of Religions, In *Religious Harmony: Problems, Practice, and Education: Proceedings of the Regional Conference of the International Association for the History of Religions, Yogyakarta and Semarang, Indonesia, September 27th-October 3rd, 2004*, Walter de Gruyter, Vol. 45, 2006, page. 85; Iwan Permana, Rosliana Dewi, Johan Budhiana, Iyam Mariam, Lia Novianty, Rima Novianti Utami, Waqid Sanjaya and Abdul Rahman La Ede, Socio-Cultural Approach on Disaster Risk Management of Sirnaresmi Customary Village, West Java, *Research Horizon*, Vol. 1, No. 4, 2021, page. 136-142.

- a. damage to various life support systems that are vital for humans, both biophysical and social systems;
- b. the emergence of new hazards due to human creation, such as hazardous and toxic materials and biotechnology products;
- c. transfer of risk burden to the next generation or other regions, and;
- d. lack of functioning of the social organization system in society¹⁸.
- e. From this understanding, the human environment can be classified into:
 - 1) The physical environment is everything around us in the form of inanimate objects such as houses, vehicles, mountains, air, sunlight, and the like.
 - 2) The biological environment is everything around humans in the form of other living organisms apart from humans, animals, plants, micro-organisms (plankton), and others.
 - 3) The social environment is other humans around them, such as neighbours, friends, and others.

From this understanding, it can be illustrated that humans in their lives have a reciprocal relationship with their environment. Humans in their lives, personally and as community groups, always interact with the environment in which they live, in the sense that humans, with their various activities, will affect their environment, and environmental changes will affect human life. The reciprocal relationship between humans and their environment forms a system called an ecosystem¹⁹. According to the provisions of Article 1 point 4 of Act No. 23 of 1997 concerning Environmental Management, it is stated that the ecosystem is an arrangement of elements of the environment that constitutes a comprehensive whole and influences each other in shaping the balance, stability, and productivity of the environment.

The rapid development in Indonesia needs to be balanced with economic, technical, and environmental feasibility studies called EFS. The main purpose of the EFS is to manage and monitor activity so that there is no controversy about the carrying capacity of the local environment, and it is a scientific study needed for policy-making decisions, namely in determining the application for a business license. If the EFS study is carried out consistently, the negative impacts that may arise from a business activity can be suppressed, or steps can be prepared to overcome them²⁰.

18 Harun M. Husein, *Lingkungan Hidup: Masalah Pengelolaan dan Penegakan Hukumnya*, Bumi Aksara, Jakarta, 1993

19 George Sessions, The Deep Ecology Movement: A review, *Environmental Review*, Vol. 11, No. 2, 1987, page. 105-125; Edra Satmaidi, Konsep Deep Ecology dalam Pengaturan Hukum Lingkungan, *Supremasi Hukum: Jurnal Penelitian Hukum*, Vol. 24, No. 2, 2015, page. 192-105,

20 Carol Warren and Kylie Elston, *Environmental Regulation in Indonesia*, University of Western Australia Press/Asia Research Centre on Social, Political and Economic Change, Murdoch University, 1994; A. Siregar and S. W. Utomo, Environmental Impact Assessment

Moreover, EFS provisions in Act No. 22 of 2021 concerning the Implementation of Environmental Protection and Management it is regulated in article 15, namely that every business and/or activity plan is likely to have a major and significant impact on the environment and must have an analysis of environmental impacts. Based on Government Regulation No. 27 of 1999, which is the implementation of Article 15 of Act No. 23 of 1997, it is stated that EFS is a study of the major and significant impacts of a planned business and/or activity on the environment which is required for the decision-making process regarding the operation of a business and/or activity. The EFS study includes an Activity Plan, Terms of Reference), Environmental Impact Analysis, Environmental Management Plan, and Environmental Monitoring Plan²¹.

Based on Presidential Decree No. 196 of 1998 concerning the Environmental Impact Controlling Agency, it is stated that the establishment of the Environmental Impact Management Agency is based on the consideration that increasing development will cause greater impacts and requires control so that development can be carried out sustainably. Because the region is the spearhead of environmental problems, with the Decree of the Mayor of Semarang No. 061.1/191 of 2001 concerning the Elaboration of Duties and Functions of the Semarang City (Bapedalda).

Act No. 22 of 2021 concerning the Implementation of Environmental Protection and Management promulgated on February 2, 2021 specified various provisions relating to the implementation of environmental management by local governments, both based on the principles of de-concentration and decentralization. Until now, the affairs of the field of environmental management are still a central matter. The implementation of environmental management affairs at the centre is carried out by the Minister for the Environment and the Environmental Impact Management Agency.

Environmental impact control carried out by Environmental Impact Management Agency is aimed at creating a good and healthy environment so that it will be able to support environmentally sound and sustainable development and can improve human welfare²². In line with the Environmental Impact Management Agency's mission of realizing a clean and healthy environment, the environmental impact assessment carried out includes:

- a. Prevention efforts so that the quality of the environment is not polluted through the development and application of production technology that does not produce waste (zero discharge) or clean production.

as A Regulation and Equator Principles as an Initiative, in *IOP Conference Series: Earth and Environmental Science*, Vol. 399, No. 1, 2019

21 Trias Hernanda, Legal Analysis on Amdal as an Environmental Protection Document, *Legal Standing: Jurnal Ilmu Hukum*, Vol. 4, No. 2, page. 108-115, 2020.

22 Shakeb Afsah, Benoit Laplante and David Wheeler, Regulation in The Information Age: Indonesian Public Information Program for Environmental Management, In *Governance Innovations in the Asia-Pacific Region*, Routledge, 2019, page. 205-218

- b. Efforts to overcome in the event of pollution, through efforts to manage the waste produced by the Waste Quality Standards so that it will reduce the burden of waste contamination that enters the environment or apply the 3R principles, namely re-use, recycle, and or recovery.
- c. Efforts to restore quality so that the polluted environment can be restored by reducing the amount of waste contamination that enters the environment and or increasing the environment's capacity.

2. Reconstruction of Legal Policies of Environmental Management in Central Java's Urban Industrial Areas

As a realization of the commitment to carry out environmental impact control as mandated in Act No. 22 of 2021 concerning the Implementation of Environmental Protection and Management, a policy for controlling environmental impacts is implemented as an effort to improve environmental quality, which is one of the goals of sustainable development, namely:

- a. Dissemination of laws and regulations on the environment to be understood, especially by decision-making officials and industrialists.
- b. Thoroughly explore matters relating to the environment about development as stated in the Outline of State Policy, namely realizing environmentally sound and sustainable development by utilizing natural resources as efficiently as possible and paying attention to preserving the environmental carrying capacity function.
- c. Development and improvement of operational implementation regulations.
- d. Develop and strengthen the authority of the Semarang city government and the institutions responsible for dealing with these problems through the Semarang City Regional Environmental Impact Management Agency.
- e. Regional development plans must be environmentally sound that is implemented in an integrated manner; its development operations are carried out in a strict and controlled manner in harmony with field conditions through the application of Environmental Feasibility Study (EFS) as one of the instruments of sustainable development and a means of decision making at the project level.
- f. The main target of the policy for handling pollution and environmental damage is directed primarily at the problem of liquid waste, solid waste, air pollution, and/or noise through waste minimization programs and clean technology for production and service activities.
- g. Development of responsible awareness and community participation in controlling pollution and environmental destruction, especially for groups in the business community, which are the main potential for pollution.

By the provisions of Presidential Decree No. 10 of 2000 concerning Bapedal, the Regional Environmental Impact Management Agency (Bapedalda) was formed in the regions where Bapedalda was formed, taking into account the complexity of environmental problems, the magnitude of environmental problems, regional financial capacity and the ability to provide employees. Based on these two provisions, the City Government can form a City/Regency Bapedalda. Bapedalda, as an operational, technical agency for environmental impact control has the task of assisting mayors/regents in carrying out coordination, technical guidance, and environmental impact control which includes prevention and control of pollution and/or environmental damage as well as restoration of environmental quality by applicable laws and regulations²³.

To carry out the task of controlling environmental impacts mentioned above, Bapedalda has the following functions:

- a. Monitoring the implementation of the Environmental Feasibility Study (EFS).
- b. Evaluate environmental impact management activities and the implementation of EFS in the regions.
- c. Prepare recommendations for the determination of EFS approval.
- d. Make efforts to explain the EFS.
- e. Conducting technical guidance and supervision of environmental impact control.
- f. To restore the quality of the environment and provide information on efforts to enforce and control pollution and environmental damage.

To be able to carry out environmental monitoring and obtain data and facts accurately and quickly, an Environmental Laboratory has been established to expedite the duties and functions of the Environmental Impact Management Agency. The environmental laboratory's purpose is to analyze waste and water samples accurately and quickly to support the smooth evaluation of environmental problems that arise.

This is further emphasized in the 2000 GBHN, Act No. 22 of 2021 concerning the Implementation of Environmental Protection and Management and Act No. 5 of 1984 concerning Industry and Government Regulation No. 27 of 1999 concerning EFS, has stipulated that controlling environmental pollution and/or environmental management is an obligation for those who cause it. Negligence and violations can be threatened with administrative, civil, and criminal sanctions. The low level of compliance with environmental pollution control legal provisions is caused in carrying out their business activities; many of these industrialists are still not aware of and understand environmental principles: a) internalization of external costs, namely entering the cost of

23 R. Rachmawati, Q. Imami, L. A. Nasution, U. Choirunnisa, R. P. A. Pinto and H. Pradipa, *Urban Environmental Management: An Effort Toward Magelang Smart City*, In *IOP Conference Series: Earth and Environmental Science*, Vol. 451, No. 1, IOP Publishing, 2020, page. 012029; Shakeb Afsah, Benoit Laplante and David Wheeler, *Regulation in The Information Age: Indonesian Public Information Program for Environmental Management*, In *Governance Innovations in the Asia-Pacific Region*, Routledge, 2019, page. 205-218.

waste treatment into production costs; b) polluters are responsible for the loss/damage they cause (polluters pay); c) responsibilities ranging from engineering, and production to waste management completely and sustainably²⁴.

Handling the waste thoroughly and sustainably, in the end, will have an impact on the emergence of social costs, known as external costs that must be incurred by the wider community or the government as a result of the company not controlling environmental impacts. This is to carry out environmental principles, namely by carrying out sustainable environmental management, as regulated in laws and regulations²⁵. Government Regulation No. 27 of 1999 concerning EFS states that every activity/business that is estimated to have a significant impact is required to conduct an Environmental Impact Analysis, the reference of which is the use of RKL/RPL, which is prepared based on the estimated assumptions. Meanwhile, Environmental Management Efforts and Environmental Monitoring Efforts are intended for activities that do not have significant impacts.²⁶

In applying administrative sanctions, the initiative to implement sanctions can first be from officials authorized to apply sanctions, officials who carry out supervision, and the community. The existence of the Environmental Impact Management Agency in controlling environmental impacts will be implemented if it is supported by all parties, namely the community, entrepreneurs, and the government.²⁷ For this reason, all parties must comply with all laws and regulations relating to controlling environmental impacts. This obedience and obedience will show the effectiveness of environmental law in the community. Obedience and compliance of all parties to the applicable laws and regulations begin with the image of all parties to their environment. If a person can understand and appreciate how important environmental management is

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- 24 Sjaifuddin Sjaifuddin, Environmental management prospects of industrial area: A case study on Mcie, Indonesia, *Verslas: Teorija ir praktika/Business: Theory and Practice*, Vol.19, page. 208-216, 2018; Frederikus Fios, Eco-Philosophy for Industry Practices in Indonesia, *Advanced Science Letters*, Vol. 21, No. 4, page. 907-909, 2015
- 25 David A. Sonnenfeld, Contradictions of Ecological Modernisation: Pulp and Paper Manufacturing in South-East Asia, In *The Ecological Modernisation Reader*, Routledge, 2020, page. 372-390.
- 26 Lisdiyono, Edy. Legal idealism and implementation: An analysis of the gap between environmental policy and the local regulation in Indonesia, *Journal of Legal, Ethical and Regulatory*, Issues. 21, No. 4, 2018, page.1-10; Handayani, Sri Wahyu, Suparjo Sujadi, and Arie Sukanti Sumantri, A Critical Review Of The Discrepancy between The Spatial Planning Map and The Spatial Planning Regulation of Agricultural Lands in Indonesia: Kulon Progo Regency Case Study, *World Review of Science, Technology and Sustainable Development*, Vol. 16, No.4, 2020, page. 343-360.
- 27 Lo, Carlos Wing-Hung, and Gerald Erick Fryxell, Governmental and Societal Support for Environmental Enforcement in China: An Empirical Study in Guangzhou, *Journal of Development Studies*, Vol. 41, No. 4, 2005, page. 558-588; Van Rooij, Benjamin, and Carlos Wing-Hung Lo, Fragile Convergence: Understanding variation in the Enforcement of China's Industrial Pollution Law, *Law & Policy*, Vol. 32, No. 1, 2010, page.14-37.; McAllister, Lesley K., Dimensions of Enforcement Style: Factoring in Regulatory Autonomy and Capacity, *Law & Policy*, Vol. 32, No. 1, 2010, page. 61-78.

for survival and life, then he is not indifferent to the environment; this shows a person's environmental image is positive²⁸.

Non-domestic industrial/business activities are one of the potentials that are believed to be a source of environmental pollutants. Realizing the potential and image as one of the sources that pollute the environment, the industry needs to work hard to take responsibility for environmental management. Considering the era of globalization or free trade, the issue of a positive image related to the environment is very important.²⁹

The problem of controlling environmental impacts is an obligation for entrepreneurs/industry parties. However, in its implementation, there are still obstacles such as low level of compliance with environmental impact control legal provisions³⁰. For instance, there are still many entrepreneurs who do not realize and understand environmental principles, as an internalization of external costs, namely including the cost of processing waste into production costs.³¹ There is also an increase in production which results in the increased liquid waste disposal. Other obstacles include incomplete waste treatment unit. The existing waste treatment unit is no longer able to accommodate the liquid waste released by the factory. Lastly, lack of human resources who must serve both as supervisors in the field as well as officers who must be responsible for implementing the provisions of laws and regulations in the field of controlling environmental impacts. In this regard, the efforts made by the Regional Environmental Impact Management Agency of Semarang City are to consistently enforce Act No. 23 of 1977 concerning Environmental Management and Government Regulation No. 27 of 1999 concerning Environmental Impact Analysis, and to improve supervision and continuous monitoring of the implementation of EFS in the field programmatically.

Overall, the findings highlight the important authority of regional agency of environmental control and management. Environmental control and management steps from early to last step were dependent on the

28 Shakeb Afsah, Benoit Laplante and David Wheeler, Regulation in The Information Age: Indonesian Public Information Program for Environmental Management, In *Governance Innovations in the Asia-Pacific Region*, Routledge, 2019, page. 205-218.

29 Haufler, Virginia. A Public Role for The Private Sector: Industry Self-Regulation in A Global Economy, Carnegie Endowment, 2013

30 Bond, Alan, Thomas B. Fischer, and Josh Fothergill., Progressing Quality Control in Environmental Impact Assessment Beyond Legislative Compliance: An evaluation of the IEMA EIA Quality Mark Certification Scheme, *Environmental Impact Assessment Review*, Vol. 63, 2017, page.160-171; Toro, Javier, Ignacio Requena, and Montserrat Zamorano, Environmental impact assessment in Colombia: Critical Analysis and Proposals for Improvement, *Environmental Impact Assessment Review*, Vol. 30, No. 4, 2010, page.247-261.

31 Gadenne, David L., Jessica Kennedy, and Catherine McKeiver, An Empirical Study of Environmental Awareness and Practices in SMEs, *Journal of Business Ethics*, Vol. 84, No. 1, 2009, page. 45-63; Sánchez-Medina, Patricia S., et al., Environmental Compliance and Economic and Environmental Performance: Evidence from Handicrafts Small Businesses in Mexico, *Journal of Business Ethics*, Vol. 126, No. 3, 2015, page.381-393.

function of the agency, although the responsibility for environmental control is by business itself. The findings of this research highlight the significant function of the Semarang City Bapedalda to monitor the implementation of Environmental Feasibility Study (EFS), evaluate environmental impact management activities and the implementation of EFS in the regions, make recommendations for determining EFS approval, make efforts to inform EFS, carry out technical guidance and supervision on controlling environmental impacts, restoring environmental quality and providing information on efforts to enforce and control pollution and environmental damage.

This encourage a progressive legal approach towards environmental impact control strategies including developing priority programs and strategies. The implementation of the policy can be measured for a certain period with clear benchmarks of success, carrying out structuring of regulations in the field of pollution control, increasing the commitment of decision-makers in government and society, as well as community participation in environmental impact control programs.

D. CONCLUSION

The findings of this study highlight the important function of local environmental agencies, especially in Semarang City in controlling the environment associated with or as a result of the existence of industrial estates. With the various functions it carries out, several strategies and programs need to be manifested with clear benchmarks in supervising, monitoring and providing technical recommendations and guidance related to Environmental Feasibility Studies (EFS) in urban industrial areas in order to restore environmental quality of life and control environmental pollution and damage. As part of the reconstruction of legal policy, these findings suggest the need for clearer provisions regarding authority and strengthening the functions of environmental management and control agencies at the local level as many powers are decentralized to local regions in the current era of autonomy. In addition, it is necessary to harmonize environmental and industrial laws to harmonize economic interests and sustainability in this rapid globalization.

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