

# The Role of Environmental Law in the Era of Industrial Revolution 4.0

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**Abstract:** *National Development is the government's efforts in realizing the development of a just and prosperous society according to the Preamble of the Constitution of 1945. The conditions of economic growth and political stability and environmental law in the Era of Industrial Revolution 4.0 are increasingly maintained, so the challenges and demands to overcome various problems need to be immediately addressed well. To continue the aspirations of the nation's founders, environmental preservation must be carried out properly and in accordance with the continuity of sustainable development. The manifestation of the implementation of the Law on Environmental Protection and Management must be prioritized to preserve the environment and create environmental comfort for the wider community. The present study used normative juridical library research by conducting an analysis of applicable laws and regulations as well as legal references related to the topic of the present study. The results revealed that the role of the state in enforcing environmental law should be done strictly and performed through educative legal sanctions, and the participation of community members can be practiced well through socialization on increasingly changing regulations.*

**Keywords:** *Environmental Law, Environmental Sustainability.*

## I. INTRODUCTION

Environmental law is the science that regulates the environment and its natural resources for the survival of life, as well as the welfare of humans and other creatures. The regulation of Environmental Law in Indonesia is comprehensively regulated in the law and regulations concerning Protection and Environmental Management. The history of the rise of the provisions of environmental legislation began with the issuance of Law Number 4, 1982, concerning Basic Provisions of Environmental Management (State Gazette 1982 Number 12, Supplement to State Gazette Number 3215), which was legalized on March 11, 1982. Along with the awareness of the community that has grown and developed in the environmental management around their residence and the law on the Basic Provisions of Environmental Management which is more than 15 years old, the material in Law Number 4, 1982 has been carried out

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improvements in accordance with the times. As a matter of fact, the Law Number 23, 1997 concerning Environmental Management (State Gazette 1997 Number 68, Supplement to State Gazette Number 3699) was legalized on 19 September 1997.[1]

Subsequently, the Law Number 32, 2009 concerning Environmental Protection and Management (State Gazette of the Republic of Indonesia Number 140, 2009, Supplement to State Gazette Number 5059) was legalized on October 3, 2009, and the Law Number 23, 1997 was declared revoked and declared not applicable. This Law on Environmental Protection and Management was legalized on October 3, 2009. Improvements in this new environmental law is demonstrated by the strengthening of the principles of environmental protection and management based on good governance because in every process of formulating and applying instruments to prevent pollution and/or environmental damage as well as prevention and law enforcement, it requires the integration of aspects of transparency, participation, accountability, and justice. [2]

This needs to be understood that a good and healthy environment and the right to obtain health services is a human right of every citizen as stipulated in Article 28H of the Constitution of the Republic of Indonesia, Second Amendment {4}. Besides, the improvement of this environmental law is prioritized to guarantee legal certainty and provide protection for every citizen to benefit from a good and comprehensive environment in environmental preservation in their residence, especially in welcoming the Era of Revolution 4.0. The role of environmental law is very significant in approaching the Era of Industrial Revolution 4.0. This must be understood by every legal person because the Industrial Revolution 4.0 becomes part of government policy in supporting sustainable National Development. The potential benefits of Industry 4.0 give a great impact in the world of change, and lead each person to face the challenges of this information technology movement. Resistance to economic, social changes, as well as the instability of human and environmental resources needs to be anticipated, so that the various possibilities that will obstruct the environment can be minimized to take part in the Era of Industrial Revolution.[3]

This Era of Industrial Revolution, which is marked by the era of digitization, makes people increasingly challenged to move forward and take steps to anticipate all possibilities facing this era of information technology. The impact of the Era of Industrial Revolution 4.0 can be seen by the negative effect on the cultural order, ethics, and the fading of national identity as well as the employee's moral and discipline degradation in government. In the aspect of technological progress, it affects the globalization implementation to be expanded, whether in the business world, marketing, and human resources themselves as well as the environment around them. Therefore, the role of environmental law is highly expected by the community in the form of law enforcement, in facing this Era of Revolution 4.0. In this article, the role of environmental law will be examined in facing challenges in the Era of Revolution 4.0, which has been functioning since the Hannover Fair 2011.[4]

## **II. METHOD**

The research method uses normative content that regulates the rights of every citizen to obtain a decent level of welfare for humanity. The state has the right to implement policies from various aspects of development in the legal, cultural, and socio-economic fields. The socio-economic development as one of the implementation of national development policies has produced a lot of progress, including improving the welfare of the community. The type of research used in this article is normative research, which is a legal basis in the form of legal norms, legal rules, court decisions, and doctrines used as guidelines in implementing the role of environmental law in approaching the Era of Industrial Revolution 4.0. Normative research is the building of norms in the form of principles, norms, rules, from the applicable laws and regulations, court decisions, agreements, and doctrines of experts. The present study will analyze the success of the increasing role of environmental law to encounter the Industrial Revolution 4.0. The method of approach used in the present study is normative juridical along with a legislative approach. In the method of legislative approach, it is necessary to understand the hierarchy and the principles in laws and regulations. The normative juridical method focuses on the philosophical aspects of the formation of the basis for the regulation of state social responsibility. This method will review the rules regarding state responsibility in environmental protection and management to improve the welfare of the wider community.[5]

### **III. RESULTS AND FINDING**

#### *Environmental Law Enforcement*

The Preamble of the Constitution of the Republic of Indonesia of 1945 and its amendments stipulated that the fourth paragraph is a constitutional basis that manifests that natural resources available in the Republic of Indonesia can be used to the maximum for the prosperity of the community. Meanwhile, in Article 33 paragraph (3) of the Constitution of 1945, it is regulated that the earth, the water, the natural resources available is controlled by the State and used for the greatest prosperity of the community. Furthermore, in Article 33 paragraph (4) of the Constitution of 1945, the results of the fourth amendment, it is regulated that the national economy shall be held based on economic democracy with the principles of togetherness, efficiency, fairness, sustainability, environmental insight, independence, and by maintaining a balance of progress and national economic unity. [6]

To maintain environmental insight that is fair and equitable, sustainable, and for the welfare of the community, the role of environmental law needs to be carried out consistently and decisively. If necessary, a brief and quick trial is needed to conduct shock therapy for perpetrators of acts that violate environmental laws. Policy problems in environmental management are aimed to increasingly strengthening aspects of environmental management and law enforcement in environmental management. The role and participation of environmental legal instruments are needed especially in the Era of Revolution 4.0. The role of environmental law in dealing with the Era of Revolution 4.0 shows the very dominant force carried out, which is to prevent violations of the law in the implementation of the era of digitizing the information system. The enforcement of environmental law is closely related to obedience

to the users and implementers of legislation, both the community and the state administrators, that is law enforcers.[7]

The indication that the law must be obeyed by the community is a sign that the objective of the issuance of environmental law can be achieved properly and the community is protected by their rights and obligations as legal subjects. The development of the principles and rules of environmental law in the Law of Environmental Protection and Management are very closely related to the implementation of the Era of Revolution 4.0, so that environmental law enforcement must be applied with clear and firm legal sanctions.[8] Law enforcement which contains obedience and compliance with environmental law comes with all the binding conditions for every individual. Thus, every individual must obey the legal provisions in the Law of Environmental Protection and Management. The process of the academic text of the provisions of environmental law has been discussed through a process that is formed from the awareness of every human being whether to carry out and not according to the regulations.[9]

According to Jimly Asshiddiqie, Law Enforcement is the process of making efforts for the real establishment or functioning of legal norms as a guideline for behavior in traffic or legal relations in the life of society and state {11}. Enforcement of environmental law is related to various quite complex aspects which aim to maintain and create an environment that can be enjoyed by everyone in a broad sense without disturbing the environment itself. It takes a fairly long time in the implementation of environmental law to fight crime in the field of information technology. However, with the existence of brief law enforcement, the crime can be suppressed in the field of the internet or in the Era of Revolution 4.0. Enforcement of environmental law can be carried out in a preventive and repressive manner {12}. The preventive enforcement means that active supervision is carried out on compliance with regulations without direct events involving concrete and real events that give rise to a suspicion that law regulations has been violated. To anticipate this event, supervision needs to be carried out following the Article 71 paragraph (1), (2), and (3), Article 72, Article 73, Article 74 paragraph (1), (2), and (3), and Article 75 of the Law Number 32, 2009 concerning Environmental Protection and Management. [10]

#### **The Use of Environmental Law in Information Technology Violations**

The era of globalization has placed Indonesia as part of the world's information society so that in anticipating environmental damage in the Era of the Industrial Revolution 4.0, it is necessary to establish a Law of Information Technology. The application of the provisions regarding information technology can improve technological development in an optimal, equitable manner and spread throughout the archipelago. The use of the internet as one basic matter in the development of information technology is increasingly sharp and has pushed its development leaps. In accordance with Law Number 11, 2008, as amended by Law Number 19, 2019, concerning Information and Electronic Transactions, it is stated that Electronic Information is one or a collection of electronic data, including but not limited to text, sound, images, maps, designs, photographs, electronic data interchange (EDI), electronic mail, telegram, telex, telecopy or the like, letters, signs, numbers, Access codes, symbols, or processed perforations that have meaning or can be understood by people who are able to understand it.[11]

Utilization of Information Technology and electronic transactions are carried out with the following objectives:[14]

- a. Educating the life of the nation as part of the world's information society;
- b. Developing national trade and economy in order to improve the welfare of the community;
- c. Increasing the effectiveness and efficiency of public services;
- d. Opening the widest opportunity for every person to advance their thoughts and abilities in the field of the optimal and responsible use and utilization of Information Technology; and
- e. Providing security, justice, and legal certainty for users and providers of Information Technology.

It is undeniable that the development of technology carries a useful function by making human life easier on earth. On the other hand, it can have a negative impact because hackers can more easily damage data or other criminal crimes in the information sector. With the discovery of computer tools and equipment as technology and information products, there has been a relationship and correlation between technology of telecommunication, media, computer, and information as a tool to create everything quickly and precisely. Through internet media, people in the world can carry out activities as factual and real life in the world. Various results of productivity that interact with the Internet and computers can cause huge losses both materially and immaterially. [15]

The development of technology and information is one of the factors that can cause harm and crime both committed by an individual, a group of people, or a legal entity. The losses can be experienced by individuals or business entities and the losses that are never thought by the community at this time is a loss on the environment due to the use of computers or the Internet. Regulations regarding the use of information and communication technology are clearly regulated after the promulgation of Law Number 11, 2008, concerning Information and Electronic Transactions, which was later amended to Law Number 19, 2016. The problem of using the Internet has always been a discussion. However, along with the increasing use of the Internet in the community, especially the use of social media, there are also cases of information and electronic transactions.[16]

As a result of misuse and or internet connection or computer, it can cause damage to the environment around us. An information system that has been built on applications that function for human safety will be damaged and does not function later. Consequently, the relationship or convergence that has been made will be interrupted and not connected between one party with another party, so that there will be a loss both on the individual, nature, or the surrounding environment. If this happens, the environment will be disrupted resulting in losses to certain community. Thus, the role of environmental law needs to be promoted in anticipating violations in the world of Internet and computer use. In principle, the role of environmental law will be very helpful if a synergy between legal sanctions in environmental law and law of information technology can be integrated. If the rules of law of technology and information are inadequate for actors or perpetrators in information technology, they may be subject to legal sanctions in environmental law and environmental management.[17]

#### **IV. CONCLUSIONS**

Based on the results and discussion of the study explained above, it can be concluded that in order to realize the objectives of environmental management through the prevention and control of pollution in information technology, an appropriate legal approach strategy is required to overcome environmental cases by optimally utilizing the Law Number 32, 2009, concerning Environmental Protection and Management. To support of the implementation of this regulation, government officials must be involved who properly understand the implementation and enforcement of environmental law as functional law. The existence of environmental law has significant roles to encounter various environmental damages that have been present to date. In addition to law regulations, environmental law enforcers are also an inseparable part to provide environmental protection and management.

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