

## Legal enforcement of individual behavior in the context of environmental policy

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### Abstract

Awareness of environmental damage that affects the quality of human life, such as the adverse effects of climate change, requires action and intervention by the government and society through policy and law enforcement. Normatively, this research examines the relationship of law as a representation of social control or what is called law as a tool of social engineering to community behavior. Environmental law plays a role in maintaining and controlling damage arising from human behavior and will in daily activities. The result of this study is that legal formation in increasing public awareness and concern in Indonesia towards environmental damage in mitigating and adapting to climate change is still not effective. That is evidence that the percentage of people who believe in environmental damage due to climate change in Indonesia is the lowest. This study concludes that there is a need for the most effective law enforcement to increase individual awareness of the impact of environmental damage on sustainable development.

**Keywords:** enforcement; individual behavior; environmental policy

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### Introduction

The problems faced by the country regarding environmental damage are currently the most important issue apart from the problem of human crime in general. Environmental problems will be increasingly exacerbated by policies without action that regulate individuals against most sources of pollution, such as waste produced, energy consumption from fossil fuels, environmentally unfriendly means of transportation, and industrial activities resulting from individual behavior towards the environment. Environmental damage is increasing in intensity as humans exploit natural resources without reasonable limits and significant recovery, and without considering the impact on current and future generations (Yuliyanto, Alatiqoh, & Alfaruq, 2022).

Kuh Katrina's research (2012) stated that mandates given by law and addressed to individuals are often ignored as a policy tool to help change individual behavior that is important for the environment. That is caused by the views that exist within a society regarding perceptions, including 1) the perception that law enforcement regarding mandates given by individuals creates technical, administrative, and other cost obstacles; 2) implementation of the mandate given to individuals will trigger an insurmountable objection response to the intrusive impact given which is considered to offend freedom and privacy which cannot then be adopted and enforced.

The Indonesian rule of law index is based on data from the World Justice Project (WJP); Indonesia's overall score for the rule of law from 2015 to 2023 is 0.52-0.53. This score places Indonesia in 68th place in the world in terms of state law enforcement efforts (World Justice Project, n.d.).





**Graph 1.**

Indonesia overall rule of law score over time, 2015 - 2023

Source: World Justice Project (n.d.)

Law enforcement is an important part of social control in implementing state plans and goals for the common good. Environmental problems in Indonesia are experiencing serious problems. The exploitation of natural resources has worsened the quality of the environment. Apart from that, human activities such as vehicles, production and forest fires (Nisa & Suharno, 2020).

The development of environmental law is currently stretched to the existence of the government to address it, especially on environmental issues that have exceeded the boundaries of government and state management. Disasters arising from environmental damage have increased human awareness of the need to preserve the environment and enforce its laws. Especially the damage to the three important aspects of air, water and sea are important aspects of the environment for humankind. M. Zaid's (2023) research also says that Indonesia, as a developing country, has environmental problems in the process of government programmes in "development" initiatives that indirectly and unwittingly damage the quality of life of the community (Zaid, Musa, Adinda, & Cait, 2023). Similar to this study, the awareness and trust of the Indonesian people towards climate change is the lowest of other countries (Buchholz, 2020). This awareness is most likely due to the lack of enforcement of laws and policies.

Based on their role as legal subjects in international law, individuals have a recognized position at the level of international law. So that individuals can participate in the context of responsibility. Human actions that can affect the environment, such as environmental damage, require consequences for actions that violate environmental law. The realization of environmental legal policy will be based on the legal system established by the authorities in a country. The purpose of this research is to elaborate on law enforcement as law as a tool of social engineering to increase public awareness of environmental damage and the worse impacts of ignoring it. As explained by Lawrence Friedman, the legal system divides three factors that determine the effectiveness of law enforcement: legal structure, legal substance, and legal culture (Lutfi, 2017). Legal culture is one of the factors that will encourage every individual to be aware of the importance of environmental sustainability and all activities with environmental impacts as a result of individual behavior to implement legal culture. Legal culture is also closely related to the professionalism of law enforcement officers who carry out their duties (Asis, Sofyan, Aswanto, & Sampurno S., 2015).

## Methods

This research uses data collection techniques through observation of observations of laws or what is called the normative juridical method, namely through legal approach analysis (Anton,

Ediwarman, Madiasa, & Hamdan, 2020) by focusing on laws and regulations related to climate change mitigation and adaptation efforts. Evaluation of Law Number 32 of 2009 concerning Environmental Protection and Management, which is partially amended by Law Number 6 of 2023 concerning Job Creation related to air pollution, and Presidential Regulation Number 98 of 2021 concerning the Application of Carbon Economic Value to Achieve Nationally Determined Contribution Targets and Control of Greenhouse Gas Emissions in National Development which regulates emissions trading. These two legal policy rules in Indonesia encourage individuals to take responsibility for the environment, especially on aspects that exacerbate and encourage climate change, such as human activities in energy use, deliberate land clearing by burning forests, use of non-environmentally friendly means of transportation, and other industrial activities that produce emissions. This research uses secondary data in the form of 27 relevant scientific journals and supporting documents from 4 website addresses. This analysis also uses data obtained from the official website of the Indonesian Ministry of Environment and Forestry in the form of data on forest fires in Indonesia from 2019 to August 2023 and data from the World Justice Project (WJP) regarding the index of the rule of law in Indonesia from 2015 to 2023 which are relevant as qualitative data with descriptive presentation to support the explanation and legal argumentation of this research.

## Results and Discussion

### Elaboration of law theory as a tool of social engineering on individual behavior towards environmental damage

Indonesia, as a constitutional state, bases the management and utilization of natural resources in the constitution. The constitutional mandate is that natural resources are protected from damage caused by human actions. As stated in Article 33, paragraph (3) of the 1945 Republic of Indonesia Constitution, the use of natural resources is for the prosperity of society. However, along with meeting the needs and utilization of natural resources, environmental problems arise. Then, Article 33 paragraph (4) of the 1945 Republic of Indonesia UUDNRI emphasizes that in the implementation of development in an effort to advance the national economic framework, the principles of sustainability and environmental insight must be prioritized, which has not yet become the basic reference for the existence of a policy. The implementation of this article is often neglected in reality (Mahardika & Bayu, 2022).

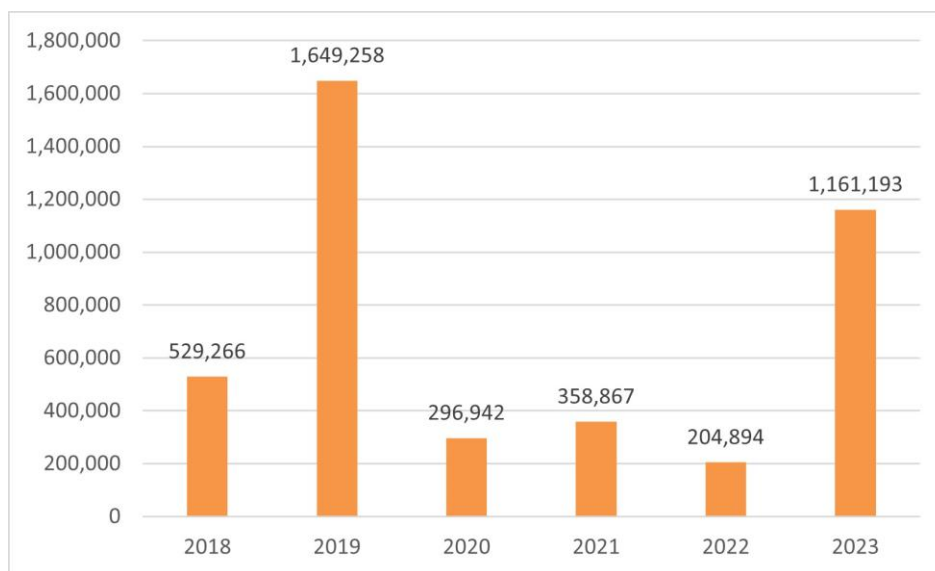
Enforcement based on the explanation from Nottie Handhaving Milieurecht includes monitoring and implementation of threats, using administrative, civil, and criminal instruments to achieve the structuring of legal provisions and regulations that apply to individuals and the general public (Herlina, 2017). An understanding of the importance of preserving a sustainable environment does not only exist in government institutions in a country, but individuals as part of the implementing role are also an integral part that cannot be separated between humans and the environment. Human choices in using energy, for example, the use of electrical energy sourced from fossil fuels, will further worsen climate change. Environmental policy has a role in regulating the relationship between humans and the natural environment for the sustainability and interests of both. The direction determined by both will depend greatly on the environmental policies created. This policy will direct organizations, departments whose role is to protect the environment, and public facilities to be clearly articulated hierarchically (Macabontoc & Vargas, 2021). Apart from that, legal attitudes and actions will have an influence on citizens' actions because these attitudes are within the scope of legal awareness, so legal attitudes are a form of legal awareness, not elements of behavior to show efforts to 'maintain the law' or choose to 'go against the law' as well as 'contrary to the law' (Ibragimova, Shchegoleva, Borisov, & Agayeva, 2018).

However, on the other hand, concerns regarding the law enforcement process regarding environmental issues caused by human behavior have not shown significant efforts. Forest burning in Indonesia is a frequent occurrence. That is caused by deliberate efforts to clear land by burning it during the dry season, which often results in disaster. Law enforcement is not

inclusively related to legal regulations and widespread recognition that compliance with environmental policies is based on a voluntary nature. Additionally, there are few sanctions for non-compliance. The existence of an 'implementation gap' in current developments characterized by technological innovation does not have a significant impact on the relationship between sustainable industrial development and technological innovation (Ibragimova et al., 2018).

Legislation and legal policies, in general, are social engineering tools as a reference for the rules that live in society. The role of law in the social engineering process is divided into two characteristics. First, the law acts as an active engineering tool; that is, the law is created because of the existence of society. Second, the law acts as a passive engineering tool due to changes in society (Matnuh, 2018). In Law No. 32 of 2009 concerning Environmental Protection and Management, sanctions and obligations in environmental management are regulated. One of the sanctions is regarding forest fires resulting from the clearing of industrial plantation land.

Increasing environmental pollution in Indonesia is a serious threat. Excessive exploitation of natural resources and the environment without paying attention to environmental sustainability will damage the ecosystem and threaten the lives of future generations. The increasing amount of natural damage that occurs due to human activities, such as marine ecosystems, destruction of forests as a source of oxygen and the world's lungs, flash floods, and landslides, are forms of environmental damage (Nisa & Suharno, 2020). The threat of climate change from increasing earth temperatures can be caused by reducing environmental ecosystems and the erosion of forest areas.



**Graph 2.**

Area of forest and land fires for the January – August 2023 period  
Source: Ministry of Environment and Forestry (2024)

A report from Adi Ahdiat (2023) based on data from the Ministry of Environment and Forestry of Indonesia in the January-August 2023 period, indications are that the area of forest and land fires in Indonesia reached 267,935.59 hectares. The provinces with the most extensive forest fires include West Kalimantan (54,402 ha) and East Nusa Tenggara (50,396 ha) (Ahdiat, 2023). Furthermore, the latest data on the forest and land fire monitoring system show that 1,161,193 hectares of forest fires occurred in 2023, or at least 82% more than in 2022 (Ministry of Environment and Forestry, 2024). Forest fires in Indonesia often become a problem that threatens the achievement of Nationally Determined Contribution (NDC) and FOLU Net Sink in 2030 (Ahdiat, 2023). The implementation system for forest monitoring and guarding, which causes the erosion of forest land area, can be caused by increasing population, increasing economic needs, and weak enforcement laws regarding forest management in Indonesia (Yusyanti, 2019). Forest

management should be carried out with the principles of benefit, justice, democracy, openness and responsibility for forest preservation .

The process of public understanding of the policies that have been made by the state through the government is the most important part of the implementation of legal regulations. Apart from that, there are factors in understanding implementation factors as policies, which are categorized as demographic factors and individual factors, including age and gender, education, ideology, and specific beliefs regarding the perception of the fairness and effectiveness of a policy (Ejelöv & Nilsson, 2020).

The challenge of environmental problems such as climate change and the erosion of biodiversity is considered a crime problem. Complex issues are now starting to be embedded in a social context that accommodates various actors with conflicting interests and potential. In addition, many conflicts and debates in the fields of science and society tend to ignore the complexity of sociality in pressing socio-environmental problems. This form of neglect, for example, means that little attention is paid to facts about daily life practices that damage the environment, such as driving a car and energy using in existing households (Rau & Edmondson, 2022).

Each country has different cultures and legal customs in society. Each has a value regarding the measure of obedience and delinquency. Regarding the realization of existing law, the main relevance of law is to direct people's behavior to respond to certain rules or face appropriate sanctions due to the damage they do. Therefore, the influence on the legal system is a large enough factor to provide encouragement to law enforcement, citizen behavior, and law enforcement mechanisms carried out both directly and indirectly (Forji, 2010).

The function of the social order that is formed will give rise to reciprocal relationships carried out by individuals to encourage their behavior to carry out positive or negative actions, such as actions that comply with the rules or are against the law. That is like the legal adage that says '*ubi societas ibi ius*' is the mouthpiece of the law because of the existence of social life. Hans Kelsen explains that social function is a form of social order, so a legal order must be formed. There is no way of what can be done to form a community with large numbers other than establishing a coercive legal order (Forji, 2010).

Law enforcement on environmental issues often faces challenges and obstacles. For example, sanctions that are not commensurate with the damage caused by an individual or company, legal regulations that do not accommodate and favor the environment, and government intervention in the development process that ignores environmental interests. Environmental justice and efforts in development planning must be a '*condition sine qua non*' that the law must be implemented with a future orientation. As a tool for societal renewal in the thinking developed by Roscoe Pound, in the pragmatic legal realism school, that is his famous conception: law as a tool of social engineering. Then, it was developed by Muchtar Kusumaatmadja with his legal conception, with the main ideas underlying it, as follows: 1) Order or order in community development efforts is a form of absolute desire and outlook. 2) Law in the sense of rules must function as a regulatory tool and means of development or in the sense of regulating human activities in the desired direction leading to development and renewal (Wahyu, 2018).

Then, the theory of 'law as a tool of social engineering' referred from Roscoe Pond explains the main task of law is as a tool of social engineering. Law is formed not only for the benefit of society but must be enforced properly as an effort of social control and orientated towards the desired changes (Yahya & Alimuddin, 2022). When awareness of the importance of protecting the environment became a concern at the international level, individual countries began to form legal regulations to deal with environmental problems. However, many problems, such as government intervention, cannot be achieved quickly and easily, but many countries are increasingly realizing the importance of dealing with environmental damage seriously by establishing legal regulations (Ilić-Petković & Ilić-Krstić, 2016).

As a form of effort to implement the law in society, Roscoe Pound classified the theory of 'law as a tool of social engineering' among the interests that must be protected, including the public

interest, which includes the interests of the state as a legal entity and safeguarding the interests of society; personal interests which include property rights interests, individual and family interests; as well as the interests of society as a form of maintaining the interests of peace and order. The theory of 'law as a tool of social engineering' is a step to carry out legal reform in society, which is expected to be able to change social values in society (Safira, 2017).

### **The role of individuals as social beings in mitigation and adaptation to climate change**

Public awareness of environmental damage is currently starting to show high concern. The proof is the international agreement on climate change, that is, the United Nations Framework Convention on Climate Change (UNFCCC) 1994. One of the agreements that shows the most change is the Paris Agreement, as part of the international environmental legal instrument on climate change, the 1994 UNFCCC, which was ratified by Indonesia through law No. 16 of 2016 concerning Ratification of the Paris Agreement. This agreement is a form of international concern and a sense of shared responsibility regarding climate change issues. Countries participate in reducing emissions through climate change adaptation and mitigation targets and programs (Bilqis & Afriansyah, 2019). This convention is a form of law that regulates climate change and gives a mandate to countries to reduce emissions until they reach net zero carbon by 2050. A strong commitment is needed so that by 2030, countries achieve half of the 2050 target. The country also needs to form legal regulations to develop all aspects of policy that lead to efforts to reduce greenhouse gas emissions. Several countries in the world have legally binding climate laws. One of them is Massachusetts and Connecticut, which passed laws to solve global warming in 2008.

Based on a report from the Intergovernmental Panel on Climate Change (IPCC) shows that from 1990 to 2019, the source of GHG emissions from CO<sub>2</sub> came from industry, fossil fuels, and land and forest conversion by 75%. This shows that the higher the GHG effect will result in an increase in global temperatures. One of the effects is sea level rise and land subsidence, which will be detrimental to human life socially, economically, and ecologically. This condition will have a big impact on Indonesia, considering that the country is an archipelago and spreads from Sabang to Merauke. Many coastal areas will be directly impacted by climate change (Zukmadini & Rohman, 2023). The effort to mitigate this is to provide every individual with an understanding of the dangers of climate change.

Environmental problems resulting from global warming, which has driven the intensity of the earth's temperature increase, have led to climate change. One of them is air pollution, which puts pressure on the earth's ecosystem and poses a serious threat to humans (Shivanna, 2022). Mitigation of preventing environmental damage from air pollution is one of the state's efforts that can be implemented with legal policies that are environmentally friendly and sustainable. Environmental degradation is conceptualized as a collective action problem. This problem arises as a result of individual exploitation efforts conflicting with collective benefits. Each actor benefits from the use and consumption or production choices of those who enjoy it. On the other hand, losses incurred due to environmental degradation are shared. That means that without environmental awareness, actors tend to continue carrying out activities that produce pollution, thereby encouraging third-party (state) intervention efforts through public policy to direct actors towards choices that are more sustainable and will benefit the collective (Ejelöv, Haring, Hansla, Jagers, & Nilsson, 2022).

The implementation of policies aimed at achieving environmental sustainability goals creates problems and difficulties for the government in making decisions and implementing them frequently. Public policies that are made need to be accepted and understood by the public in order to be effective and achieve sustainable environmental goals. If there is a surge of rejection from society towards these policies and actions, then politicians will hesitate to implement them. Efforts to mitigate and adapt to climate change will influence Indonesian citizens in carrying out and upholding the government's obligations in these aspects. Although international law regarding agreements on the Climate Change Convention does not specifically require certain methods to

achieve NDC targets, several things can be considered to determine policy direction in achieving NDC targets. One of them is legal rules that are effectively binding (Ariani, 2019).

The public's views are normatively important regarding the government's responsibility for environmental financing efforts (Kulin & Johansson Sevä, 2019). As Kulin and Johansson, increasing spending in the environmental sector is very dependent on the role of society in its beliefs regarding government responsibility. This success also has full implications for the quality of the government institutions that handle it, such as effectiveness, impartiality, and non-corruption. Based on a report from the United Nations Environment Program (UNEP) regarding a global study of the supremacy of environmental law, weak enforcement of environmental law is currently a global trend and poses a major threat to environmental sustainability. There have been changes and growth in the laws governing the environment, and government agencies have been responsible for them over the last four decades (United Nations Environment Programme, 2019).

Basically, individual behavior in a country, which in this case is a legal subject, can be achieved through strict legal regulations. In the context of sociology, society plays a role in determining the direction of inclusive policies. In Soerjono Soekanto's opinion regarding how concepts in legal sociology will determine the three main characteristics that exist in society, including a) behavior and legal patterns formed by society; b) patterns of behavior and law as creation and the manifestation of social groups; c) the reciprocal relationship between social change, legal change, and cultural change, so, it is necessary to understand how a law will operate in society (Laksana et al., 2017).

The impacts that will result from global climate change will also affect human behavior, such as decreased physical health, threats to cultural heritage, and comfort of residence. However, this impact is not truly recognized by the global community in general. These risks will get worse without any action to prevent climate change through legal policies (Evans, 2019). Other projected impacts of human behavior due to climate change are a) disruption of mental health due to increasing global temperatures; b) limited social interaction; c) disruption of recreational activities; d) big storms; e) flash floods; f) drought; g) displacement of residence due to disaster; h) inhibited cognitive development.

Regarding individual environmental responsibility, the government and business world are currently making efforts to promote the environment to the public. These efforts are carried out through environmentally friendly consumerism, household recycling, and passive membership in environmental groups. Academically, the process of implementing these responsibilities needs to be studied and discussed regarding concepts related to values, environmental behavior, and environmental concerns that have been studied in the last decade to lead to a series of pro-environmental individual behaviors. The effectiveness and fairness of policies will influence individual awareness of environmental responsibility. However, there are difficulties in understanding environmental responsibility as part of consistent behavior because this will depend on the individual's social context and the direction of organized environmental policy (Eden, 1993).

## Conclusion

Climate change is the result of human activities which produce pollution and emissions. International environmental law has provided specific direction regarding mitigation and adaptation for countries that have agreed to the UNFCCC and the Paris Agreement. Presidential Decree No. 98 of 2021 concerning NEK only regulates certification as a permit for the emission thresholds produced by a company. However, laws governing individual behavior to initiate adaptation and mitigation to reduce emissions have not been explicitly regulated in Indonesia. Apart from that, this is a factor in the behavior of individuals who are still ignorant of environmental conditions and the increasing temperature of the earth due to climate change. The novelty in this research is that individual behavior management in response to environmental damage can be influenced by legal policies. Consequences for contributing to environmental

damage in even the smallest portion must include sanctions and compensation. So, people's sensitivity to the environment shows continuous progress in line with sustainable economic development.

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