



## THE IMPACT OF CLIMATE CHANGE ON ENVIRONMENTAL DISPUTES AND CONFLICTS IN INDONESIA

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**Abstract:** Climate change is a critical issue in Indonesia with significant environmental and societal consequences. This research explores the impact of climate change in the context of ecological disputes and conflicts in Indonesia. Involving multidimensional analysis, this study investigates how climate change exacerbates tensions between natural resource utilization and environmental conservation. The results show that rising temperatures, changes in rainfall patterns, and rising sea levels significantly contribute to natural resource conflicts. A deeper understanding of these dynamics will enable the formulation of more effective policies to manage and prevent disputes while promoting environmental sustainability in the future. This study provides a local nuanced view of the global challenge of climate change and provides a basis for mitigation and adaptation efforts in Indonesia. This research investigates the impact of climate change on environmental disputes and conflicts in Indonesia. As a tropical country vulnerable to climate change, Indonesia faces severe challenges in balancing economic development and ecological conservation. The impacts of climate change, such as rising temperatures, changes in rain patterns, and rising sea levels, are triggering conflicts related to land, natural resources, and the rights of indigenous peoples. This research uses an interdisciplinary approach to analyze the complex relationship between climate change and environmental conflict, focusing on case studies in various regions of Indonesia. The results are expected to provide in-depth insights for public policy and sustainable mitigation actions to overcome the impacts of climate change and minimize the risk of environmental conflicts in the future.

**Keywords:** Climate Change; Environmental Disputes; Global Warming

### 1. Introduction

Climate change has become a global issue that is increasingly urgent to be addressed. Indonesia, as a country with a rich diversity of ecosystems, is not immune from the impacts caused by climate change. This research investigates how climate change contributes to environmental disputes and conflicts in Indonesia. A deeper understanding of the complex interactions between these factors can provide important insights into efforts to prevent and manage conflicts that may arise as environmental conditions change.

Climate change is a severe challenge to environmental sustainability, and Indonesia, as a tropical country with a diverse ecosystem, is not spared from its impact. Through this research, we will explore how climate change is critical in triggering environmental disputes and conflicts in Indonesia. With a deep understanding of these dynamics, it is hoped that sustainable solutions can be identified to overcome emerging problems, maintaining harmony between development and environmental preservation.

In Indonesia, there hasn't been a comprehensive study tracking the effects of climate change on local environmental conflicts, except for one conducted by the World Wildlife Organization.



This study revealed that climate change in Indonesia has led to a decrease in annual rainfall, affecting 4,444 cents percent, resulting in a 2-3 dollar reduction and alterations in seasons. Indonesia, one of the countries most impacted by climate change due to its high population density, extensive biodiversity, 80,000 kilometers of coastline, and 17,500 islands, faces the challenges outlined.

In 2009, Indonesia's Environmental Law underwent three changes. In a span of 27 years (1982-2009), at least 40 environmental controversies occurred between 4,444 communities and industries and 4,444 plantations. Such conflicts are caused by pollution and ecological degradation. As a result of pollution and degradation, local economic activity is disrupted. Given the weakness of court decisions, it is suggested that litigation in court is not the only recommended option.<sup>1</sup>

Most academic research on the environment in Indonesia is conducted from the point of view of environmental science, political science, or political science, and the new study seems to fill some critical gaps in the 4,444 published scientific literature on this topic<sup>2</sup>. On the contrary, based on the forty environmental disputes mentioned above, the courts seem to be the only way to resolve the disputes. Therefore, Law Number 23 of 2009 concerning Environmental Protection and Management stipulates that parties must mediate before deciding to take the case to court. This is contrary to this circumstance. The use of mediation in the settlement of environmental disputes is increasing. Keep in mind that the best mechanism for resolving ecological conflicts is mediation. For example, the United States uses mediation to resolve many environmental disputes.

Unfortunately, the above forty factors show that the palm oil industry and plantations cause pollution and environmental degradation. Climate change also causes environmental conflict in communities, although many studies show that pollution is not the only factor causing conflict. For example, Klar's research can help understand this argument.

Secondary sources such as court decisions and cases taken from books, research reports, and magazines are the subject of this study. The analysis focuses on testing in the context of disputes, the timing of conflicts, and district court decisions in environmental and climate change litigation. In addition, the authors consider the extent to which the Indonesian government estimates the impact of climate change on social, economic, and legal life. The document begins with pressing concerns about Indonesia on climate change before entering the discussion.

Environmental problems are certainly as complex as global dynamics. As they grow in scale, they are no longer stagnant as local issues but are expanding at regional, national, and transnational levels. Similarly, One of the scourges of problems in the interaction between living organisms is environmental problems. This is because ecological issues impact not only one aspect but also each other, depending on the known characteristics of the environment in

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<sup>1</sup> Achmad Romsan et al., "Climate Change and Community Environmental Conflicts: Are They Correlated," *Sriwijaya Law Review* 1, no. 1 (2017): 53–63, <https://doi.org/10.28946/slrev.Vol1.Iss1.9.pp067-079>.

<sup>2</sup> "Environmental Dispute Resolution In," n.d., <https://doi.org/https://library.oapen.org/bitstream/handle/20.500.12657/34653/379132.pdf?sequence=1>.

which the interaction occurs. This will inevitably decrease the carrying capacity of the land, water, and air environment because the population and the limited land area are increasing. Its use should be prudent and fair. And establish rules to prevent environmental damage, primarily to regulate activities that damage the environment.

In addition, the purpose of environmental law is to combat pollution, degradation, and irresponsible use of the environment from the point of view of environmental protection and management, including the case of the Strategic Environmental Assessment (KLHS). According to Law Number 32 of 2009 concerning Environmental Protection and Management, or UUPPLH, imbalances and considerations often occur regarding environmental management, resulting in environmental pollution that directly or indirectly impacts ecological biodiversity, often exceeding environmental damage standards.<sup>3</sup>

Indonesia's population, poverty, and politics are inextricably linked to environmental issues. Population becomes an environmental problem when natural resources no longer meet human needs. As a result, Indonesia's population growth is faster than the carrying capacity of its natural resources by humans, so humans must regulate the number of its population. In addition, environmental problems are exacerbated by poverty., suggesting that tackling environmental issues in Indonesia requires eradicating poverty. Sectoral and selective policies, such as those made only for agricultural interests without considering other interests, will not cause environmental problems. In addition, as many as 4,444 mining-related policies may be made only for mining purposes, while 4,444 policies related to forestry, industry, settlements, and other fields are also focused. In this regard, incorporating policies to prevent environmental problems is very important. This is evident from the fact that, in environmental policy, "compromise" is a common way of dealing with environmental issues. For example, efforts to control water pollution can increase the likelihood of air or soil pollution. This is because, rather than solving the problem, these efforts transfer pollution to other environmental media. The expansion of industry and transport sectors has exacerbated Indonesia's ecological issues.<sup>4</sup>

## 2. Rein search Methode

This research uses a mixed approach, combining quantitative and qualitative analysis to understand Consequences of Climate Change on environmental resolution and conflict in Indonesia. Quantitatively, historical and projected climate data are collected to identify climate change trends. Next, surveys and statistics identify the nature of environmental conflict and resolution, including the main determining factors. This combination is expected to provide a holistic understanding of the complexity of the relationship between climate change, conflict, and environmental conflict in Indonesia and provide a basis for relevant and sustainable policy recommendations.

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<sup>3</sup> Umami A'zizah Zahroh and Fatma Ulfatun Najicha, "Problems and Challenges on Environmental Law Enforcement in Indonesia: AMDAL in the Context of Administrative Law," *Indonesian State Law Review (ISLRev)* 5, no. 2 (2022): 53–66, <https://doi.org/10.15294/islrev.v5i2.46511>.

<sup>4</sup> Suparto Wijoyo and Wilda Prihatiningtyas, "Forest-Fire-Related Environmental Issues in Indonesia," *Environmental Policy and Law* 49, no. 2–3 (2019): 142–44, <https://doi.org/10.3233/EPL-190149>.

### 3. Discussion

No tracking studies have been conducted in Indonesia on the impact of climate change on local environmental conflicts. The survey conducted by the World Wildlife Organization found that climate change impacted annual rainfall in Indonesia to 4,444 cents percent, down from \$2 to \$3 during the summer. With 80,000 kilometers of coastline and 17,500 large and small islands, Indonesia is most affected by climate change.<sup>5</sup>

Mediate environmental conflicts can be divided into three categories. Disputes regarding the use of natural resources. Disputes arising from environmental pollution or environmental degradation. The mechanism for ending smoke disputes in the UU PPLH environment in terms of Articles 84 and 85 of Sentence 2 shall be implemented through judicial and extra-judicial resolution of disputes—the Compliance Model (Pentagon). The prosecution's criminal and conciliatory styles (conciliation) are the mechanisms of conciliation. Academics and practitioners have popularized the term mediation to articulate its importance clearly in various academic literatures through research and academic studies. Practitioners often use mediation in their dispute resolution practices, but it is not easy to fully and thoroughly define the term mediation because its scope is so broad. Mediation does not represent the model described here and is distinct from decision-making. Two types of mediation are known: in-court and out-of-court. Out-of-court mediation can be conducted by a mediator, the private sector, an individual, or an organized independent alternative dispute resolution body, the National Mediation Center (PMN). Intra-court mediation was established by PERMA No. 1 of 2008, which requires a mediation process before major civil cases can be considered, and the mediators are comprised of district court judges who do not handle the case<sup>6</sup>.

Law Number 17 of 2004 concerning the Ratification of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol, United Nations Framework Convention on Climate Change) is an Indonesian legal regulation intended to ratify the Kyoto Protocol, which is part of international efforts in dealing with climate change, the Kyoto Protocol is an essential milestone in international efforts to address climate change and pave the way for a global agreement next, such as the Paris Agreement adopted in 2015. Law No. 17 of 2004 attests to Indonesia's involvement in joint efforts to fight climate change and creates a legal basis for implementing the Kyoto Protocol at the national level.

#### 3.1. Dispute Resolution Service Provider Environment outside the Court

Human life continues to develop along with the increasing population. As a result, we are constantly faced with conflicts that are part of life, including problems that accompany every activity of human life. The probability of 4,444 issues increases with the number of people living in a community. Of course, the various problems that cause conflicts cannot always be resolved quickly and in an acceptable way. They are often parties to the conflict, which eventually results in conflict. A party resolves disputes on its own without the help of the other

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<sup>5</sup> Romsan et al., "Climate Change and Community Environmental Conflicts: Are They Correlated."

<sup>6</sup> Sabela Gayo, "Resolving Environmental Dispute With Mediation Method," *International Asia Of Law and Money Laundering (IAML)* 1, no. 1 (2022): 23–29, <https://doi.org/10.59712/iaml.v1i1.5>.

party. According to Cochrane's theory, society controls social relations because it actively discovers, chooses, and makes its own laws.

One type of conflict genre is environmental disputes, which include ecological disputes and controversies. Environment: In essence, disagreements are disputes that center on the existence or known impact on the environment. In a legal context, conflict is more correctly defined by Henry Campbell Black as "Dispute. There must be a neutral third party appointed by the parties to act as a mediator, arbitrator, or arbitrator, arguing peacefully (win-win solution). The request's wording and format must be appropriate, provided that all parties maintain their positions and avoid raising unnecessary suspicions. In addition, several Indonesian specialists said that extrajudicial dispute resolution is an efficient substitute for judicial dispute settlement in environmental disputes. This is because out-of-court dispute resolution is quick, victims can get compensation immediately, and polluters can take specific actions. Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution (ADR) provides a structure for using ADR to settle environmental disputes outside of court. A technique for settling disagreements or conflicts through processes decided upon by the parties, such as expert opinion, mediation, arbitration, negotiation, or consultation, is known as alternative dispute resolution.<sup>7</sup>

The evolution of Internet technology has made it easier for news sites, or news portals, to arise and has served as the foundation for converting print media into online news portals. This online news portal's birth and the advancement of digital technology co-occur. The number of online news portal's birth and the advancement of digital technology co-occur. The number of online media users in Indonesia is growing along with the country's Internet subscribers. This has also impacted the growth of print media in Indonesia, most of which have evolved into internet-based online news portals run by his firms.<sup>8</sup>

### 3.2. Obstacles to out-of-court resolution of environmental disputes

The dispute resolution process can be carried out through an arbitrator or mediator by Article 85 of Law Number 32 of 2009. On the contrary, Article 86 states that the community can establish service providers with free and fair support from the government and society. Alternative dispute resolution media, such as litigation, negotiation, mediation, consolidation, fact-finding, and arbitration, have evolved in out-of-court settlement of environmental disputes. Using "strict principles" is another advance in environmental law."

In environmental law enforcement, "liability" and "adverse Evidentiary principles" mean that perpetrators of environmental pollution or destruction must be held accountable for their actions at the time they occur, without any element of "negligence" at first. The accused of environmental pollution and destruction is also responsible for proving that he is not

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<sup>7</sup> Dwi Ratna Indri Hapsari, Aditya Aji Syuhadha Ilmiawan, and Echaib Samira, "Non-Litigation as An Environmental Dispute Resolution Mechanism in Indonesia," *Indonesia Law Reform Journal* 2, no. 1 (2022): 55–66, <https://doi.org/10.22219/ilrej.v2i1.20756>.

<sup>8</sup> Tri Hastuti et al., "Climate Change in Indonesian National Online Media Coverage : Agenda Setting and Sentiment" 15, no. 2 (2023).

responsible for the losses caused. Unless the defendant can prove otherwise, it is considered fault.<sup>9</sup>

Limitations and solutions to out-of-court resolution of environmental disputes include:

- A. The payment procedure cannot be completed in one go. Budget constraints impede environmental dispute resolution because the multi-session resolution process is costly despite these obstacles.
- B. The ability of other organizations with specific goals—such as political goals—to negatively impact the living environment outside borders is often needed. For example, even though those organizations can't do anything at all, they identify 4.444 organizations willing to take advantage of the current situation to strengthen community ties and increase economic disparities.
- C. Natural barriers are the following obstacles. For example, the field surveillance or verification process must be postponed if it rains.
- D. the government has enacted several laws on environmental management. However, there are still many obstacles to implementing the principle of dispute resolution, especially related to the size and type of redress. It is unclear whether the standard is adequate due to the many regulations. A comprehensive and targeted procedure for calculating compensation requires scientific and technical expertise and research to convince the parties of the truth so there are no disagreements. The situation and the opinion of the family are very important. For the parties to understand their position and not be rigid, reasonable and unquestioned consultation is necessary to reach an agreement.
- E. Has led to communities/non-governmental organizations being forced to litigate environmental issues in administrative decisions, with socio-economic impacts in the form of cancellations of 4,444 business permits. (NGOs) may come under pressure—Contamination and destruction in the courtroom.
- F. The role of the Environment Agency as the responsible agency for managing environmental impacts remains suboptimal. Legally, this role is still assigned to sectoral authorities. This is because they do not have full authority to supervise and order the conduct of environmental assessments. They suspect this is the case of an activity or company whose operations are in a fraudulent environment.

### 3.3. Efforts to stop environmental damage and Pollution in Indonesia: Improving law enforcement

Stopping environmental damage and pollution in Indonesia is an urgent and complex, requiring a holistic strategy and vigorous law enforcement. In this context, increased law enforcement plays a crucial role in preventing and mitigating adverse impacts on the environment. The following is an explanation of efforts to improve the enforcement of environment-related laws in Indonesia:

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<sup>9</sup> Hapsari, Ilmiawan, and Samira, "Non-Litigation as An Environmental Dispute Resolution Mechanism in Indonesia."

1. **Strengthening Legal Framework:**  
Increased law enforcement begins with strengthening the legal framework. Evaluation and improvement of environment-related legislation, including tougher sanctions for violations, can be a crucial first step.
2. **Legal Counseling and Awareness:**  
Increase public understanding of environmental laws through counseling campaigns and legal education. This awareness can encourage active community participation in protecting the environment and help identify violations.
3. **Strengthening Law Enforcement Institutions:**  
Ensure law enforcement agencies, such as police, prosecutors, and environmental watchdogs, have sufficient resources and expertise to handle environmental cases. Special training for legal personnel can improve their ability to handle complex environmental cases.
4. **Technology for Environmental Monitoring:**  
Modern technology, such as satellites and online monitoring systems, can facilitate the monitoring of potential environmental violations. This can help detect and tackle illegal activities more efficiently.
5. **Strict And Deterrent Penalties:**  
Apply strict legal sanctions and provide a deterrent effect for perpetrators of environmental violations. Significant penalties can be an effective deterrent and encourage compliance with environmental regulations.

Increased law enforcement will be a strong foundation for creating a sustainable and healthy environment for generations to come.<sup>10</sup> Efforts to prevent environmental damage and pollution in Indonesia have become a significant focus on facing ecological challenges. The Government of Indonesia, the private sector, and civil society have implemented various strategies to maintain environmental sustainability.

One of the main steps is the development of strict regulatory policies related to industrial and agricultural waste management and the protection of forests and peatlands. Law enforcement programs have been strengthened to address environmental violations, ensuring that companies and individuals who harm the environment are held accountable for their impacts. In addition, public education on sustainable practices and the importance of environmental conservation has been improved. Environmental awareness campaigns continue to encourage changes in consumer behavior and provide an understanding of the long-term consequences of actions that harm the environment. Prevention efforts also involve investing in green technologies and renewable energy sources. Sustainable infrastructure development, such as modern waste management and environmentally friendly transportation, is becoming an integral part of the environmental damage prevention agenda. While challenges remain, these

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<sup>10</sup> Arifin Ma'Ruf, "Legal Aspects of Environment in Indonesia: An Efforts to Prevent Environmental Damage and Pollution," *Journal of Human Rights, Culture and Legal System* 1, no. 1 (2021): 18–31, <https://doi.org/10.53955/jhcls.v1i1.4>.

serious efforts reflect an awareness of the importance of protecting ecosystems and the sustainability of natural resources, creating the foundation for a more sustainable future for Indonesia.

#### 4. Conclusion

This research reveals that climate change has become Indonesia's main driver of environmental conflict and resolution. Rising temperatures, changing rainfall patterns, and other impacts have placed significant pressure on ecosystems and the use of natural resources, creating integration that triggers competition and conflict. The results of this study demonstrate the need for immediate action to implement climate change mitigation and local adaptation policies that focus on environmental displacement and community well-being. Collaboration between government, society, and the private sector is the key to designing holistic and practical solutions.

By understanding the complex dynamics between climate change, ecosystems, and environmental conflict, it is hoped that this research can positively contribute to efforts to prevent conflict, preserve the environment, and promote sustainable development in Indonesia. This challenge requires a shared commitment to responding to the environmental crisis with targeted and data-based solutions. By Law Number 30 of 1999 concerning Arbitration and Alternative Dispute Resolution and Government Regulation Number 54 of 2000 concerning Environmental Dispute Resolution Service Providers, environmental disputes can be resolved outside the court through dispute resolution mechanisms and alternatives. The technical regulations stipulated by UUPLH are outside the law. These service facilities are not appropriately used to resolve environmental disputes. This system does not yet exist at the city or prefecture level.

#### References

- Gayo, Sabela. "Resolving Environmental Dispute With Mediation Method." *International Asia Of Law and Money Laundering (IAML)* 1, no. 1 (2022): 23–29. <https://doi.org/10.59712/iaml.v1i1.5>.
- Hapsari, Dwi Ratna Indri, Aditya Aji Syuhadha Ilmiawan, and Echaib Samira. "Non-Litigation as An Environmental Dispute Resolution Mechanism in Indonesia." *Indonesia Law Reform Journal* 2, no. 1 (2022): 55–66. <https://doi.org/10.22219/ilrej.v2i1.20756>.
- Hastuti, Tri, Nur Rochimah, Erwin Rasyid, Muhammad Raqib, and Mohd Sofian. "Climate Change in Indonesian National Online Media Coverage : Agenda Setting and Sentiment" 15, no. 2 (2023).
- Ma'Ruf, Arifin. "Legal Aspects of Environment in Indonesia: An Efforts to Prevent Environmental Damage and Pollution." *Journal of Human Rights, Culture and Legal System* 1, no. 1 (2021): 18–31. <https://doi.org/10.53955/jhcls.v1i1.4>.
- "Nvironmental Dispute Resolution In," n.d. <https://doi.org/https://library.open.org/bitstream/handle/20.500.12657/34653/379132.pdf?sequence=1>.
- Romsan, Achmad, Farida Ali, Akhmad Idris, Adrian Nugraha, Nurhidayatuloh, and Suzanna Mohamed Isa. "Climate Change and Community Environmental Conflicts: Are They



Correlated." *Sriwijaya Law Review* 1, no. 1 (2017): 53–63.

<https://doi.org/10.28946/slrev.Vol1.Iss1.9.pp067-079>.

Wijoyo, Suparto, and Wilda Prihatiningtyas. "Forest-Fire-Related Environmental Issues in Indonesia." *Environmental Policy and Law* 49, no. 2–3 (2019): 142–44.

<https://doi.org/10.3233/EPL-190149>.

Zahroh, Umami A'zizah, and Fatma Ulfatun Najicha. "Problems and Challenges on Environmental Law Enforcement in Indonesia: AMDAL in the Context of Administrative Law." *Indonesian State Law Review (ISLRev)* 5, no. 2 (2022): 53–66.

<https://doi.org/10.15294/islrev.v5i2.46511>.