Research Article

Climate Change Affects Biodiversity and its Impact on Human Rights

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Abstract.

The purpose of this article is to examine and analyze climate change affecting biodiversity, and its impact on human rights. The type of research used in this study is normative legal research. The method or data collection technique used in this study is literature study. This method is carried out by conducting an inventory and studying library data in the form of laws and regulations, books, journals, articles, documents and official websites. Based on the discussion above, it can be concluded that climate change and biodiversity loss are interrelated global challenges and can have a significant impact on human rights. Climate change threatens human rights because it causes more frequent and severe natural disasters, and disrupts the availability of important resources such as water, food, and agricultural land. Biodiversity loss can also threaten human rights because it reduces the availability of food sources, medicines, and other important resources. Climate change and biodiversity loss are challenges that require joint action from governments, international organizations, and civil society. Efforts to reduce greenhouse gas emissions, protect habitats, and raise awareness of the importance of biodiversity are essential to protecting human rights and ensuring a sustainable future.

Keywords: biodiversity, climate change, human rights

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1. Introduction

Globalization is a process that is carried out and can also make an object or the existence of a behavior as a characteristic of each individual in the world without being limited by a particular region. This climate change can refer to the existence of variations in the conditions of a climate in a real place, over a long period of time. This phenomenon is caused by an increase in the concentration of greenhouse gases in an atmosphere. The temperature on the globe, this is greatly increased, rainfall patterns change, and also the frequency and intensity of natural disasters such as storms, floods, and droughts increase.

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Climate change not only impacts the natural environment but also has major implications for human rights. Human rights encompass a range of fundamental rights that can be protected and respected in all circumstances, including the rights to life, health, food, water and shelter. Climate change threatens these rights in significant and often disproportionate ways, affecting the most vulnerable groups in society. The impact of climate change on these rights is of critical importance to the international community.

Indonesia, as an archipelagic country vulnerable to climate change, faces various challenges that impact its rights. The impacts of climate change in Indonesia include increased frequency and intensity of natural disasters, changing weather patterns, and rising sea levels, all of which can threaten the fundamental rights of citizens. Humans have various rights that must be owned, one of which is the right to life and health, namely that climate change can increase the risk of natural disasters such as floods, landslides, and heat waves in Indonesia.

Climate change and its impacts could be a nightmare for the future of humanity. The cause is none other than human behavior itself. According to the UN, climate change can be a serious threat to efforts to protect human rights and has the potential to endanger many aspects of human life. (https://infid.org/perubahan-iklim-dampaknyaterhadap-ham/)

2. Methods

The type of research used in this study is normative legal research. The method or technique of data collection used in this study is literature study. This method is carried out by conducting an inventory and studying library data in the form of laws and regulations, books, journals, articles, documents and official websites. (Mukti Fajar dan Yulianto Achmad, 2017)

3. Result and Discussion

Human rights and climate change is a legal working concept that studies and analyzes the impact of climate change on human rights. This working concept involves governmental and non-governmental organizations on a national and international scale with the aim of guiding policies related to human rights and climate change. Climate change will affect the protection of human rights such as those related to health and life, namely the right to food, water, and shelter. Climate change will also impact rights related to

livelihood and culture, namely migration and transmigration, as well as personal safety and security during conflict.

Climate change has a significant impact on the lives and health of individuals and groups around the world. The Intergovernmental Panel on Climate Change (IPCC) studies and predicts that climate change could affect the lives of millions of people, ecosystems, natural resources, and physical infrastructure. In addition, climate change can also cause drought, ecosystem decline, and food reserves in the world. These adverse impacts will clash with the protection of human rights for billions of people on earth.

Good environmental conditions such as the availability of clean air and water, healthy and nutritious food, and adequate sanitation are supporting components for the creation of health for the community. On the other hand, a dirty and polluted environment will have a significant impact on health.

Environmental law must also be able to regulate social, economic, and political patterns that have been formed for decades. These social, economic, and political patterns are not only limited to being exclusively applicable in one country, especially for countries that actively trade internationally. In such a context, the legal commitment to recognize environmental rights as universal human rights is the most needed international legal maneuver in reading the relationship between the state, the environment, human rights, and international dynamics. (Elizabeth Fisher, 2017)

John H. Knox has argued since 2005 that there is actually a close relationship between a clean, healthy and sustainable environment and human rights. This finding is based on four fundamental conditions as follows: first, climate change already disrupts the human rights of vulnerable people and poses a major threat to human rights everywhere. Second, human rights law imposes obligations on states to respond to climate change, regardless of whether they can be held responsible for its 'causes'. Third, human rights law also limits state responses.

Fourth, and most importantly, the jurisprudence that has been developed by human rights courts in the context of domestic environmental damage can be applied to global environmental damage, such as climate change, on the basis of obligations of international cooperation. (John H. Knox. 2009)

This condition brought the discourse of environmental justice to the surface. The awareness that there are groups that benefit more from environmental damage and

take away much of the quality of life of other groups has led environmental law experts to identify four aspects of environmental injustice experienced by vulnerable groups:

- 1. the experience of distributive injustice arising from disproportionate exposure to polluted environments and limited access to environmental facilities;
 - 2. procedural injustice caused by exclusionary environmental decision-making;
 - 3. corrective injustice due to inadequate enforcement of environmental laws, and
- 4. social injustice because environmental degradation is closely related to deeper structural ills, such as poverty and racism. (Robert R. Kuehn, 2021)

To provide a deeper analysis, the above injustice can be read using the human rights theory approach. As an illustration, in the last two decades there has been a heated debate between countries caused by the use of different approaches in viewing human rights, namely: the universalism and relativism approaches (adjusting the context of each country). Simply put, in the universalism view of human rights, it is believed that there are universal moral codes that are inherent in all humanity. Moral universalism places the existence of moral truths that are cross-historical, cross-cultural and can be identified rationally. (Karel Vasak, 2008) Aristotle in this view states that this moral order is natural. This moral order must then be the basis for the entire rational justice system. This means that guaranteeing a healthy and clean environment is a moral consequence and should be derived in a series of rational criteria.

The criteria are made comprehensively to test the legitimacy of the existing legal system. This universal principle is also known as the doctrine of natural law which believes that the existence of a natural moral code is identified from certain fundamental human interests.

Recognizing a healthy environment as a universal human right in addition to providing technical implications also provides rational-philosophical implications, that currently environmental protection to create decent living conditions is a universal moral code that is cross-border and cultural. However, Indonesia has a huge homework, starting from the policy posture to the absence of political will, where the entire series of problems will be presented by the author to provide an overview of the points of Indonesia's problem space as a country that signed the UN Resolution on Access to a Clean, Healthy, and Sustainable Environment as a Universal Human Right.

Human rights refer to the basic rights that are inherently owned. Rights in Indonesia can be protected by legislation that discusses the protection of rights. Not only legislation, the existence of a commission that discusses these rights also aims to promote

and protect every right it has. The commission that discusses these rights can be done by investigating, researching and also monitoring human rights. Climate change has a profound and diverse impact on human rights throughout the world, including in Indonesia. Climate change can cause an increase in the frequency and intensity of natural disasters such as floods, droughts, and tropical storms. These disasters directly threaten the right to life by causing death, injury, and major disruption to daily life.

The many challenges and obstacles that are carried out in protecting this right, are the problems of impunity, lack of enforcement and also cases of discrimination against minority groups. And also, the role of society is to be able to promote and also protect their rights, this has a very important role in advocating for a change in policy and also being able to voice their rights.

The most severe impacts of climate change are felt by vulnerable groups, such as indigenous peoples, small farmers, fishermen, and the urban poor. Social and economic inequalities exacerbate their vulnerability to the impacts of climate change, hampering their ability to adapt and protect their rights. (Faturohman, Lucki Hidayanto, Muhamad Fahruroji, 2024)

Efforts and solutions made to protect human rights are as follows:

- 1. Adaptation, namely by developing adaptation strategies such as building disasterresistant infrastructure, improving water management systems, and increasing community capacity to deal with disasters.
- 2. Legal protection, namely to strengthen the legal framework and also a policy that aims to protect rights threatened by climate change, including protection of climate refugees.
- 3. Education, namely to increase public awareness of the impacts of climate change and the importance of proactive action through education and public campaigns.

Climate change and biodiversity loss are interrelated global challenges that can have significant impacts on human rights. Climate change threatens human rights by causing more frequent and severe natural disasters and disrupting the availability of essential resources such as water, food and agricultural land. Biodiversity loss can also threaten human rights by reducing the availability of food, medicines and other essential resources.

Impacts of Climate Change on Biodiversity:

1. Global Warming: Global warming causes extreme temperature changes, which can disrupt species life cycles, alter migration patterns, and cause habitat loss.

- 2. Changes in Precipitation Patterns: Changes in precipitation patterns can cause droughts or floods, which threaten agriculture and food production, and can cause changes in animal populations.
- 3. Ocean Acidification: Increased concentrations of carbon dioxide in the oceans cause acidification, which can harm coral reefs and other marine organisms.
- 4. Ecosystem Changes: Climate change can alter the composition of ecosystems, leading to species loss and reducing overall biodiversity.

Impacts of Biodiversity Loss on Human Rights:

- 1. Food Security Threats: Biodiversity loss can reduce the availability of food sources, such as plants and animals, which can threaten the human right to adequate food.
- 2. Resource Constraints: Biodiversity loss can reduce the availability of other resources, such as water, fuel, and medicines, which can impact the human right to basic needs.
- 3. Health Disruptions: Biodiversity loss can disrupt the balance of ecosystems and lead to increased disease, which can threaten the human right to good health.
- 4. Increased Conflict: Competition for limited resources, caused by biodiversity loss and climate change, can lead to social and political conflicts that can threaten human rights.
- 5. Climate change and biodiversity loss are challenges that require concerted action from governments, international organizations, and civil society. Efforts to reduce greenhouse gas emissions, protect habitats, and raise awareness of the importance of biodiversity are essential to protecting human rights and ensuring a sustainable future.

4. Conclusion

Based on the discussion above, it can be concluded that climate change and biodiversity loss are interrelated global challenges that can have significant impacts on human rights. Climate change threatens human rights because it causes more frequent and severe natural disasters, and disrupts the availability of essential resources such as water, food, and agricultural land. Biodiversity loss can also threaten human rights because it reduces the availability of food sources, medicines, and other essential resources. Climate change and biodiversity loss are challenges that require joint action from governments, international organizations, and civil society. Efforts to reduce greenhouse

gas emissions, protect habitats, and raise awareness of the importance of biodiversity are essential to protecting human rights and ensuring a sustainable future.

References

- [1] Faturohman, Lucki Hidayanto, Muhamad Fahruroji, Analysis of the Impact of Climate Change on Human Rights, Journal of Social, Political and Legal Studies, 2024;Volume 1 No. 3, Universitas Bina Bangsa
- [2] Knox JH. Climate Change and Human Rights Law. VA J Int Law. 2009;50(1):59.
- [3] Kuehn RR. "A Taxonomy of Environmental Justice", in Rachael E. Salcido, "Retooling Environmental Justice", Journal of Environmental Law, 2021; Vol. 93, No. 1, p. 12.
- [4] Elizabeth Fisher, Environmental Law, Oxford: Oxford University Press; 2017, p. 19 35.
- [5] Vasak K. "For the Third Generation of Human Rights: The Rights of Solidarity", dikutip dari Knut D. Asplund (eds.), Hukum Hak Asasi Manusia, Yogyakarta: Pusham UII; 2008.
- [6] Mukti Fajar and Yulianto Achmad, Dualisme Penelitian Hukum Normatif dan Empiris, Cetakan IV, Yogyakarta: Pustaka Pelajar; 2017, https://infid.org/perubahan-iklimdampaknya-terhadap-ham/
- [7] Allen JM, Terres MA, Katsuki T, et al. Modelling daily flowering probabilities: expected impact of climate change on Japanese cherry phenology. Global Change Biol. 2013;20:1251–1263. doi: 10.1111/gcb.12364.
- [8] Aquilera R, Curringham TW, Gershunov A, Benmarhnia T. Wildfire smoke impacts respiratory health more than fine particles from other sources: observational evidence from Southern California. Nat. Commun; 2021 doi: 10.1038/s41467-021-21708-0.
- [9] AR6 Climate Change: The sixth assessment report on climate change. IPCC, Geneva; 2021.
- [10] Bellard C, Leclerc C, Courchamp F. Impact of sea level rise on the 10 insular biodiversity hotspots. Global Ecol. Biogeogr; 2013 doi: 10.1111/geb.12093.
- [11] Bras TA, Seixas J, Nuno C, Jonas J. Severity of drought and heatwave crop losses tripled over the last five decades in Europe. Environ. Res. Lett; 2021 doi: 10.1088/1748-9326/abf004.
- [12] Ceballos G, Ehrlich PP, Barnosky AD, et al. Accelerated modern human-induced species losses: Entering the sixth mass extinction. Sci. Adv. 2015;1:e1400253. doi:

- 10.1126/sciadv.1400253.
- [13] Bonar SA. More than 111 aquatic-science societies sound climate alarm. Nature. 2021;589:352. doi: 10.1038/d41586-021-00107-x.
- [14] Ceballos G, Ehrlich PP, Barnosky AD, et al. Accelerated modern human-induced species losses: Entering the sixth mass extinction. Sci. Adv. 2015;1:e1400253. doi: 10.1126/sciadv.1400253.
- [15] Cleland EE, Chuine I, Menzel A, et al. Shifting plant phenology in response to global change. Trends Ecol. Evol. 2007;22:357–365. doi: 10.1016/j.tree.2007.04.003.