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A Social Ecological View in Overcoming the Environmental Crisis

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Abstract

Humans contribute to preserving nature and are even responsible for ecological disasters that occur. Humans have different characteristics from other living beings, which tend to be manipulative and want power. Conflicts related to exploiting natural resources will continue to arise if the harmony of social structures remains a problem. The orientation of modern humans tends to be materialistic and hedonistic, thus affecting the way they view their environmental systems, and contributing greatly to environmental damage. The increase in ecological disasters today cannot be separated from the poor environmental governance that tends to use natural resources without proper and sustainable environmental restoration. Through a socio-ecological approach, we seek to eliminate the commercialization of natural resources by adopting a social approach that embraces ecology, reconstruction, and communitarian approaches. This theory seeks to reconstruct and revise current views on social issues and environmental factors. The research data was collected through news fact collection and literature searches which were then subjected to descriptive and interpretive analysis. The results showed that (1) social ecology provides an understanding by prioritizing an egalitarian and democratic social structure so that humans can walk in harmony with nature, this aspect can be the basis for environmental management (2) social ecology is influenced by aspects of spirituality and egalitarianism in social structures to be a solution to the environmental crisis through changes in perspective on environmental management.

Keywords

human;social ecology; environmental; crisis; nature sustainability

1 Introduction

The environment is inseparable from human life because it plays a central role in influencing the sustainability and well-being of human life. Nowadays, it is increasingly used to emphasize the relationship between humans and nature, which suppresses the risks posed by environmental changes that are critical to life on Earth and the continuity of natural processes (Liodakis, 2023). The sustainability and welfare of human life can be achieved if humans can be one with nature and have the awareness to maintain and manage their environment properly. However, if we look at the current conditions, the awareness to maintain and preserve the environment seems to be diminishing. In this modern era, humans face a crisis of ecological awareness. Human life has become disharmonious with nature. Humans are also unable to maintain the balance of the ecosystem where they live because of their greed and selfishness. Many humans ignore the values of human life in establishing relationships with their environment. The basic orientation of human behaviour is "economic satisfaction". Nature is sacrificed and exploited to achieve personal enjoyment for profit. The teaching of learning to live together is replaced by a life filled with hedonistic material dimensions.

Humanity's relationship with nature has historically been influenced by Aristotle's Greek philosophical tradition and Judeo-Christian mythology, which defined human thought and reason as superior to others. Human thought and reason were thought to dominate and conflict with non-human nature (Artmann, 2023). The exploitation and control of non-human nature through human activities illustrates the dominant relationship between humans and nature found in Western and industrialized societies, impacting unprecedented changes in nature and the environment (Muhar & Böck, 2018).The impact of human exploitation has gone beyond the limit and threatens human security. Addressing the problems that arise in life requires an emphasis on human awareness as part of nature, connected and dependent on the biosphere (Folke *et al.*, 2021). A relational approach to addressing environmental issues is needed to better understand the human-nature relationship and measures to address the sustainability crisis.

Addressing the current environmental crisis requires cooperation and action in our lives. To date, the environmental movement has been unable to articulate a vision of human and environmental resilience that incorporates ecological challenges into tangible social realities (Laurent, 2015). The socio-ecological approach aims to fill the knowledge gap by considering the relationship between social and ecological issues. This approach aims to estimate the impact of environmental degradation and crisis and consider its consequences. The socio-ecological approach shows the link between social and ecological justice at an empirical level. Social inequality drives the ecological crisis and the ecological crisis, in turn, creates a new form of environmental inequality that occurs between developed and developing countries. Social criticism of environmental damage because of the push for excessive exploitation of nature and the Industrial Revolution. In addition, the anthropocentric view that places humans at the centre of the universe has led to arbitrary and destructive behaviours towards nature. Some examples of natural damage caused by modern human actions include an increase in global temperatures, a reduction in forest area, and environmental pollution from accumulating non-decomposable waste.

Social ecology has a philosophical vision that was initiated by Murray Bookchin in the early 1960s and continued into the 2000s. It is a unique synthesis of historical and anthropological research, dialectical philosophy, political strategy, and social ecology as a paradigm that reveals several different levels of understanding and insight into environmental issues. Environmental problems are fundamentally socio-political and rooted in historical insights dominated by social hierarchies (Tokar, 2017). Social ecology examines the egalitarian social principles of many indigenous cultures so that they can be used as guidelines in social life for the management of nature and the environment. Social ecology also emphasizes the view of nature that has been only a necessity but instead social ecology views nature as a certain effort to actualize the evolution of potential underlying creativity, awareness, and freedom.

In responding to the destruction of nature that has occurred to date, it is necessary to act through the right policy, through legal regulations that govern clearly. The social ecology approach in addressing the problem of the environmental crisis offers two important agendas. First, social ecology opposes the current capitalism in the form of oppression such as racism, ethnocentrism, and patriarchy. Second, social ecology offers reconstructive and revolutionary ideas for society in addressing post-ecological scarcity. Social ecology also considers people's struggles and proposes ways of building a new society (Cristiano, 2018). Social ecology also provides a new understanding of ethics based on mutual support, forming the basis for the struggle to promote gender liberation, egalitarianism, and cooperation. This underpins social ecology and is constructive for achieving a free and ecological society. Thus, social ecology is a basic theory to encourage social change and the development of social movements in the ecological field. The purpose of this research is to discuss ecological changes that occur in life through the perspective of social ecology and map the contribution of the social ecology movement in addressing the environmental crisis. The results of this research are expected to be information and a basis for policy development, to formulate policy regulations that are just and prepare for a better future life.

2 Environmental Crisis

Environmental impacts arise from environmental management practices that ignore environmental principles. Addressing the unresolved environmental issues fully requires a clear effort to understand the challenges and opportunities faced in responding to the environmental crisis. There are many environmental challenges, including climate change, biodiversity loss, and other environmental degradation. However, many contemporary debates in science and society tend to ignore the complexity of sociality in pressing socio-ecological issues (Rau & Edmondson, 2022). Social environmental problems are a shared responsibility, aiming for a sustainable life in the future. The emergence of environmental crises on earth reacts to human behaviour and warns humans to respond through natural signs that appear. If an in-depth search is conducted, the problem of environmental crisis occurs due to the emergence of a consumptive culture that seeks to explore natural resources in excess just to meet the needs of life (Karasmanaki *et al.*, 2023)The current environmental crisis can also be seen as a crisis of humanity and modern civilization, as the basic foundations of human civilization are increasingly incompatible with the world in which humans live today. In addition, the environmental crisis can also be referred to as a spiritual crisis, as it challenges humanity to explore what is considered useful and valuable.

The environmental crisis poses a long-term threat to human well-being and survival. The presence of advanced technology today has significantly altered and exploited the Earth's resources. In an extreme scenario, if climate change continues, the ice sheet will melt and will exacerbate global warming (Dauncey, 2002). Exploitation and pollution of the Earth have had a greater impact on the sustainability of society. Not only that, the main factor contributing to environmental degradation is the fact that the current economy is an extractive economy, which means converting natural resources into something of economic

value, leading to deforestation, overfishing, and unrestrained atmospheric pollution without any limitations (Coates & Gray, 2012). According to the Copernicus Climate Change Service (C3S), (EU, 2023) the global surface air temperature will reach 16.38 degrees Celsius. This is 0.93 degrees Celsius higher than the average September temperature for the period 1991-2020 and is a new record temperature anomaly (Ahdiat, 2023)According to the Intergovernmental Panel on Climate Change (IPCC), the UN body that studies climate change science, modern humans have never experienced global climate changes of this magnitude, and some of those changes could take hundreds or even thousands of years to return to normal Scientists predict that global temperatures will continue to rise for decades, mainly due to greenhouse gasses produced by human activities, leading to more extreme events such as forest fires, droughts, and melting glaciers. Natural disasters can also occur, leading to rising and falling sea levels (Program, 2022).

Another problem that arises is the decreasing forest area. Based on the 2017-2021 Central Statistics Agency (BPS) report, the area of forest cover in Indonesia has decreased by 956,258 hectares. This figure is equivalent to 0.5 per cent of Indonesia's total land area. Meanwhile, according to data from the University of Maryland by 2022, the tropics are expected to lose 10 percent more rainforest totaling more than 4 million hectares (nearly 16,000 square miles) due to logging or burning Fields (Kusnandar, 2022). Environmental problems are also caused by the way humans dispose of waste. According to the World Bank's 2023 Atlas of Sustainable Development Goals report, Indonesia produced around 65.2 million tons of waste in 2020. This figure makes Indonesia the fifth-largest waste producer in the world (Annur, 2023) The Ministry of Environment and Forestry (KLHK) also stated that the total domestic waste in 2021 reached 68.5 million tons, and plastic waste accounted for 17 per cent of the total waste or around 11.6 million tons. In 2022, the amount of national waste increased again to 70 million tons. The proportion of waste that is not managed by PSLB3 (Directorate General of Waste Management, Waste and Hazardous Materials) is around 24 per cent or 16 million tons. (Directorate General of Waste Management, Waste and Hazardous Materials) is around 24 percent or 16 million tons.

The problems described above are the main factors in the environmental crisis. Moreover, the environmental crisis that occurs in the 21st century can cause faster disruption of ecosystems, extreme climate change, melting polar ice caps that can increase the volume of water, and severe natural disasters that can disrupt human survival. In addition, environmental problems are also caused by the human habit of littering. According to the World Bank's 2023 Atlas of Sustainable Development Goals report, Indonesia generated around 65.2 million tons of waste in 2020. This figure makes Indonesia the fifth-largest waste producer in the world (Annur, 2023). Moreover, the environmental crisis in the 21st century can lead to faster ecosystem disruption, extreme climate change, melting polar ice caps that increase water volume, and severe natural disasters threatening human survival.

2.1 Social Ecology

Social ecology is an attempt to analyze the complexity of the dialectical relationship between nature and society, viewing humans as a product of both, not just one of the two. This theory argues that all forms of environmental damage are social problems, highlighting the dislocation of relations between humans, which is reflected in the long history of humans in building hierarchies and classes that seek to dominate each other. All forms of environmental degradation such as rainforest depletion increased toxic waste, and overexploitation are rooted not in anthropocentric tendencies, misuse of technology, or overpopulation, but in the desire for mutual domination created among humans (Best, 1998). Social ecology seeks to eliminate the commercialization of natural resources with a social approach that embraces ecological, reconstructive, and communitarian views. This theory seeks to restructure and transform current views on social issues and environmental factors. It aims to minimize social hierarchies in the economy where human communities cooperate harmoniously with nature and embrace and sustain diversity and creativity. Since the 1980s, the importance of developing sustainability as a key concept in social ecology has been considered the most appropriate response to environmental and economic development.

According to (Kyburz-Graber *et al.*, 1997) (1) environment-based education is a component in the process of community life to sustain the sustainability and continuity of social life (2) environment-based education must contribute to education in general. Murray Bookchin as a pioneer of social ecology theory tries to bring to the surface what eluded the attention of Marxists who emphasize that the nature of human domination over nature is the beginning of human domination over humans. Bookchin sees the history of humans as an organic society that is not mutually destructive, cooperative, and egalitarian based, to create a harmonious human life. At that time, everyone had their role, yet worked together and respected each other, with no intention to dominate (Best, 1998). Recently, the human desire to dominate each other has emerged and spread rapidly, beginning with the desire to dominate fellow humans, and extending to nature. However, the two realms separated by Bookchin, namely the first nature (the natural environment)

and the second nature (artificial nature as an implication of human existence or social evolution), if seen in the past, coexisted and were equal. Social ecology not only calls for moral regeneration but also for social-ecological reconstruction. It is based on an ethical call to the authorities, advocating for an ecologically oriented society to ameliorate the damage society has inflicted on nature (Clift & Druckman, 2016).Social ecology provides a perspective that questions the structures of capitalism that cause environmental destruction and climate change. It also provides the most comprehensive discussion of the origins of human social domination and its historical relationship to the mistreatment of Earth's living ecosystems. Social ecology reveals the origins of ecological disruption in social power relations and highlights the overarching historical and strategic foundations for realizing the promise of democracy. Social ecologists have sought to directly integrate democratic practices into real-world movements.

2.2 Social Ecology Contribution to the Environmental Crisis

Social ecology is a study that focuses on the relationships between people as they interact and respond to their environment and the impact of these interactions on society. Furthermore, social ecology views society collectively, understanding social problems, social interactions, and environmental issues that stem from the environment. Social ecology emphasizes the responsibility of humans to care for life on earth and consciously fight for its survival. Thus, humans are not isolated and selfish beings; instead, they are involved in the creative process and contribute to the environment. Problems in the environment are directly caused by social problems. One of them is economic capitalism, prevalent in many countries which focuses on competition and economic gain. Social ecologists argue that ignoring ecological issues will be the root of future environmental problems (Cohen, 2021). Facing problems that will occur in the future should be prepared from now on so that it will have implications for policymaking in environmental regulation.

Social ecology can contribute to solving environmental crises, as demonstrated by social ecologists in global movements advocating for climate justice and integrated flows. Social ecology reorganizes the order of human life to fight the forces of capitalism that lead to the exploitation of nature. This movement is expected to be the foundation for solving the problems of environmental degradation and possible climate change. Social ecology provides a productive framework for conceptualizing the various aspects and scales of the ecological crisis. Social ecology also reveals the power relations that influence access, control, and distribution of environmental resources and benefits. Social ecology has developed important and useful connections through the field of political ecology (Grossman, Bryant & Bailey, 1999). Political ecology highlights the political and economic dimensions of the environmental crisis phenomenon. This will affect the decision-making process that has an impact on environmental management. The political ecology referred to in this case, relates to the excessive utilization of natural resources for economic interests that ignore environmental aspects. If this is not emphasized, then in the future there will be destruction due to uncontrolled exploitation of natural resources.

In addressing the phenomenon of social-ecological crisis, an analytical and political-strategic approach is needed so that it can approach environmental problems. The social-ecological crisis is not only biophysical and material but also has a discursive symbolic dimension (Görg *et al.*, 2017). According to the principles of social ecology to solve increasing ecological problems ranging from biodiversity loss to climate change, namely with a more democratic society with popular control over the use of natural resources. In addition, it can also be done through active citizen empowerment which is needed for local, participatory, and democratic control of the people (van Tol, 2023). Based on the above strategies, to deal with environmental problems to ecological crises, it can be done through an approach to the subject of environmental management. Not only that, it is also important to approach policy regulation, this is because the policy will intersect directly with the community. The importance of environmental awareness needs to be emphasized from an early age through an understanding of ecological education so that it becomes a habit in decision-making. Proper environmental management will have implications for long-term life in the future. Through discussions of political ecology that emphasize unequal relationships, it becomes clear that these inequalities are a factor in patterns of human-environment interaction and related environmental problems. This analysis further explores how powerful groups of actors control access to nature, natural resources, and ecosystems. Social ecology focuses on the impact of society's use of natural resources on the environment, but this does not mean that all members of society contribute equally to the use of natural resources. The dominant capitalist mode of production limits the power of individuals to directly influence change and create environmental crises. In addition, social ecology plays an important role in addressing the environmental crisis (Kramm *et al.*, 2017). This can be seen in human activities that in daily life are dominated by technology and cause adverse impacts on the environment such as waste and pollution. The integration of technology into life support processes must be accompanied by social,

economic, and organizational innovations that incorporate ecological aspects and enable a better understanding of environmental conditions.

3 Conclusion

This research found that social ecology has a role in managing the crisis of environmental damage through fundamental movements and ideas that are the basis for opposing economic capitalism. This step is a way that is done to provide an understanding of awareness of the environmental impacts caused. In addition, social ecology provides an understanding of humans as policymakers and rulers in the world to be careful in utilizing natural resources for economic interests. The environmental crisis that occurs is based on the wrong socio-political paradigm and prioritizes material benefits. Social ecology emphasizes the equal relationship between humans and nature so that inequality and exploitation of natural resources can be avoided and used wisely. The view of social ecology provides a conceptual and comprehensive framework of thought so that humans play a role in the sustainability of life. Awareness of the importance of environmental management can be emphasized to the next generation from an early age so that it will have implications for environmental awareness.
This research is limited by the dependence on data traced through limited journals, articles, and online websites. Therefore, further research is needed related to the contribution of social-ecological views to environmental damage on Earth, considering that in the future there will certainly be more environmental damage that has not been described at this time. This will have implications for the sustainability of life in the future. In addition, other researchers are expected to develop further research from social ecology on the problem of environmental damage on a wider scale of data. Analyses related to social ecology's view of the environmental crisis can be the basis for policymaking related to environmental management and regulation of natural resource management.

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