

# **Environmental Criticism and Educational Value: A Study of Indonesian Literary Cyber**

Mutolib<sup>1</sup> & Onok Yayang Pamungkas<sup>2</sup>

<sup>1,2</sup>Master of Indonesian Language and Literature Education, University of Muhammadiyah Purwokerto, Indonesia

Correspondence: Onok Yayang Pamungkas, University of Muhammadiyah Purwokerto,

Indonesia

Email: onokyayangpamungkas@gmail.com

DOI: 10.53103/cjlls.v5i3.210

#### Abstract

This research is an effort to describe and explain the values of literary ecocriticism and education in poetry contained on the Riau Sastra web through a review of literary ecocriticism and educational values. The research method uses hermeneutic. The research data source is poetry from the Riau Sastra.com website. The results showed that the poems in Riau Sastra represent environmental pollution in the form of water, air and soil, excessive forest clearing, exploitation of natural resources. It also contains educational values. The poems in Riau Sastra represent the exploitation of nature, deforestation, water pollution, air pollution, natural disasters, and animal exploitation. In addition, the poems also represent educational values including religious, cultural, social and moral. The poems are not only reading material, but also a source of messages, information that will have an impact on understanding the environment and the educational value of the importance of protecting the environment. Therefore, a strong effort is needed to understand and provide an understanding of how important the value of criticism on the environment and education using literary appreciation and one of them is poetry. In addition, efforts are needed to build an understanding of the importance of protecting the environment and aspects of it such as not polluting the environment whether it is water, air and soil, not cutting down forests excessively, exploiting natural resources for future interests.

Keywords: Literary Ecology, Ecocriticism, Educational Value, Green Literature, Literary Cyberspace

#### Introduction

Environmental issues are a frequent discussion because the situation is getting more and more dangerous. This problem is due to the rise of the Industrial Revolution that was sparked without considering cultural, social and environmental aspects. The impact of these problems makes pollution of water and soil, this is because the waste is dumped on

the ground, then spreads and seeps into the cracks in the soil, and pollutes the wells and land of residents around the industrial plant (Genoveva Larasati & Elly Purwendah, 2022; Schensul et al., 2015). In addition, the position of nature is declining, and at the same time it will also cause biological development to shrink (Pamungkas et al., 2022). Where the negative impact is the destruction of the environment and the possibility of increasing the occurrence of disasters.

One of the strategies undertaken to answer these environmental problems is the issuance of Law Number 32 of 2009 concerning Environmental Protection and Management (Amri, 2011). Article 2 of the law regulates the polluter pays principle, which requires the polluter responsible to bear the cost of compensation for environmental damage. However, the law has not had a significant impact on the environmental ecosystem. In the scope of education, various rules related to environmental management have begun to be echoed, such as school environmental management towards adiwiyata schools (Monalisa, 2013; Syamsuddin, 2024). From this, young people have an important reole to continuing environmental sustainability in the future, therefore it is important to understand the role of education in shaping awareness and action to continue to care for the environment (Despriana & Rianti, 2024). This is done to continue to introduce the dangers of environmental damage and the prevention of environmental damage itself.

Many things can be done to raise public awareness of the environment. One of them is literary works. Literary works can actually be a medium in the form of a message or mandate to its readers (Mu'jizah et al., 2023; Nasution, 2008). In relation to literary works, it will reveal how the role of literature in expressing environmental ideas (Flannery, 2016; Mu'jizah et al., 2023). Literature can also be used as an agent of change to provide knowledge related to the importance of public awareness and public concern for the environment. Thus, through literature, people are expected to have the knowledge to solve and prevent damage to the environment.

At the same time, some Indonesian writers have also struggled to take part in discussing preventive measures for global environmental damage. For this reason, literary struggles are documented on the Riau Sastra website through various styles of poetry that focus on environmental criticism. Like the poem by Nadin Natari with the title "Rasa Sastra" explains the picture of Riau city which has problems related to ecology. Some problems such as exploitation of natural resources in the form of mining exploitation, logging in the Riau region. But after a handful of people have enjoyed the results they forget what has been done. From these problems, problems arise in the form of unhealthy air from mining due to air pollution from mining and forest fires.

In the second poem entitled "Primata di Hutan Sisa" by Ahmad Lamili Masar, it tells the story of a forest that is a place to shelter and find food for various kinds of animals, especially the primate "ungka", being deforested by humans. The deforestation causes degradation in nature, which will have a negative impact in the form of natural disasters,

animals that lose their places and places to find food. In the third poem titled "Arus Hilang Di Lubuk Larangan" by Muhammad Sholeh Arshatta, he explains the condition of a river called "lubuk larangan". This poem tells the story of a river that was once clean and used by many people for various activities and even cultural activities. But as time progressed, the river turned into a dirty, shallow river due to the accumulation of garbage, the smell was unpleasant and caused the ecosystem in the river to be unattended, many fish and other plants died due to water pollution in the river.

In the fourth poem entitled "Untuk Hutanku" by Heddy WS. The poem tells a story of sadness due to deforestation and irresponsible human exploitation of the forest. The diction "Melancholy" and "Staggered" emphasize the suffering of nature in the form of deforestation. Forests that were once told to live in harmony but now because of irresponsible and greedy humans, there is damage and destruction of the forest itself which causes the current ecosystem to be unsustainable. From this, the poem also explains the impact of forest destruction, in the form of loss of natural resources, disasters where it will have a negative impact on humans and other creatures.

The fifth poem with the title "Mendulang Peradaban" by Gimin Saputra tells the story of a former mine that is not maintained and forgotten by the times. Whereas in the poem it is explained that the mine used to produce a lot of gold and became a symbol of the glory of its time. However, people do not preserve this cultural and historical heritage. Through this poem, there is a symbol of struggle as well as exploitation and traces of civilization that are forgotten. The sixth poem entitled "Perihal Asap, Hujan dan Kita" by Marzuli Ridwan Al-Bantany explains how there is disharmony between humans and nature. Humans who are greedy for power over natural resources cause disasters such as forest fires caused by humans. In addition, this poem explains that humans must maintain the existence of nature. The importance of research is that discussion of environmental issues can guide human beings to have an ethical attitude towards the environment. This is because, by its very nature, literature is a subtle medium of education, without being patronizing, just like classroom learning.

This research is present to examine and analyze the values of Literary Ecology and Educational Values contained in the collection of poetry in the web "Riau Sastra" and explain the values that exist in the context of education. Literary ecology is a scientific study that examines the reciprocal relationship between humans and the environment and literature itself (Flannery, 2016; Garrard, 2004; Gifford, 2011; Ibrahim & Anggraini, 2022). From this, it is hoped that by understanding the content of literary ecological values and educational values in this collection of poems, it is hoped that it can understand literature as a material to enrich the media for caring characters for the environment with a holistic approach. By utilizing literary works in the form of poetry with an ecological and educational approach, it allows students not only to understand ecological values theoretically but also to implement them in their daily lives with the combination of educational values

in it. Literary ecology provides practical values in building awareness of environmental ethics amid the threat of ecosystem destruction (Flannery, 2016; Masjid & Pamungkas, 2024).

With this research, it is also expected that students will increasingly understand how important it is to understand the importance of environmental aspects not only for now but also in the future. Environmental Education (EE) is important to increase awareness and social responsibility for the environment among students (Masjid & Pamungkas, 2024; Rahayu et al., 2024). In one of the webs that contains various writings www.riausastra.com, researchers are interested in examining the ecological value of literature and educational value in the web. Of the poems contained have many sub-themes, one of which is poetry related to literary ecology. Through the web, there will be many ecological values and educational values in the relationship between humans and the environment.

#### **Research Methodology**

This research is an interdisciplinary study of literature that will be closely related to the environment, which will explore the relationship between literary works and environmental issues. Therefore, the researcher will use qualitative methodology to describe the phenomena present in the text that the author is researching. This method was chosen because it is descriptive and has the ability to explore data in depth related to the phenomenon being analyzed. Charismana et al., (2022) explain that qualitative research is very suitable for literary phenomena, because the results of literary works are a universe of letters to become words or symbols with full meaning so that their meaning needs to be interpreted so that they are easily understood and openly accepted. Qualitative Description is suitable for describing various information in literary texts (Stake, 2010). This form of analysis is usually used in social phenomenology (Pamungkas et al., 2023).

The research object used is cyber literature because the data used is taken online through the *website www.riausastra.com* published by Riausastra.com, Indonesia. The data sources in this study are texts (words, phrases and sentences) that contain literary ecological values. Qualitative data is classified using content analysis techniques based on the text or main theme (Elo & Kyngäs, 2008; Pamungkas et al., 2021). The data in this research are words, phrases, and sentences that contain ecological and educational elements. Data validity was tested through data triangulation (Miles et al., 2014; Pamungkas et al., 2018). In analyzing the work is done through: 1. reading the poem and collecting data in accordance with the study in the form of literary ecology and education; 2. analyzing related data in accordance with the research objectives; 3. verifying the data; 4. making conclusions; 5. conducting a final check for the purpose of adjusting to the objectives of the research.

## Results and Discussion Environmental Criticism in Literature

The results will be explained in the discussion. Literary criticism analysis will be described using values that contain literary criticism in accordance with Gerard in Fadila & Israhayu, (2023) theory, which explains that there are six concepts in literary ecocriticism, namely: (a) (pollution), (b) (wilderness), (c) (apocalypse), (d) (dwelling), (e) (animals), dan (f) (earth). Meanwhile, educational values will be explained using four values, namely religious, moral, social, and cultural, as explained by (Maulidiah et al., 2020).

### RASA RIAU Nadin Natari

Bawah minyak atas asap	Bottom oil top smoke
Kelabut menghadap hingga membuatnya cacat	The mist overlooks him until he is deform
Tak ada tanggung jawab semua diam	No responsibility all silent
Tanahnya disebat setiap saat	The land is raided at all times
Ibu pertiwi menangis	The motherland cries
Menoleh keadaan sakit tak berdarah	Turning to a state of bloodless pain
Di kelam senja Riau menyeruak	In the darkness of the twilight Riau burst
Membabat habis tanah tak bertuah	Clearing out the fruitless land
Kelam senja menghakimi	The darkness of the twilight judges
(Nadin Natari, 2024)	(Nadin Natari, 2024)

## Ecological Criticism in the Form of Deforestation and Air Pollution (Wilderness and Polution)

The poem "Rasa Riau" (The Taste of Riau) becomes a picture as well as a representation of the state of the region. according to (Riau Province Environment and Forestry Service Work Unit, n.d.) Riau is a province with the largest peatland on the island of Sumatra, which is  $\pm$  4.04 million hectares or 56.1% of the total area of peatland in Sumatra (Setiani et al., 2023). But despite the vastness of Riau's forests, there is serious damage being done to the region's forests due to deforestation. Not only is the forest issue a major problem for Riau, but also the continuous exploitation of natural resources. As in the text of the poem, it tells the story of the continuous exploitation of nature.

### The Impact of the Environmental Crisis (Apocalyps)

The impact of this environmental crisis and exploitation of nature will have consequences for humans and their environment. In line with this, according to (Amri, 2011), environmental damage has the potential to cause poverty, which will ultimately spark conflict. This can be seen in the quote "Bottom oil top smoke". where the quote explains that there is mining "exploitation" activity in the Riau region. There is more than one form of exploitation in this poem. However, social criticism also emerged in the poem. Quoted in the passage, "The mist overlooks him until he is deformed, No responsibility all silent". The disharmonious relationship between nature and humans is very apparent, with criticism focusing on the lack of accountability for the "exploitation" of nature by humans.

According to Listiyani, (2017) mining activities have the potential to have negative impacts because they can damage and reduce the quality of life and reducing the quality of life and causing death. In line with this opinion, the exploitation of nature has a negative impact on the surrounding environment. However, people living in that area suffer greater impacts in the form of disease. This is found in the quote, "The mist overlooks him until he is deformed." The quote tells of a disability/illness suffered by humans as a result of exploration in the form of "deformed" which means that the word "smoke" is evidence of mining activities that cause air pollution. This air pollution causes problems in the form of dangerous diseases.

In addition, Riau's mirror representation has a bleak outlook due to the impact of natural exploitation on the quote "In the darkness of the twilight Riau burst out" describes ecological degradation and symbolizes destruction "dark" in that environment. Next is the exploitation of nature by humans for their own benefit. This can be seen in the following excerpt "Clearing out the fruitless land" The quote shows that there is exploitation of the environment in the form of "Over-exploitation of natural resources, deforestation for industrialization, and environmental pollution" carried out by humans for their own benefit.

The essence of this poem is the exploitation of Riau's land in the form of continuous mining "activities" that do not have a positive effect but cause negative effects in the form of "disease" and a lack of accountability from the parties involved. This shows the indifference of the community and all elements of society towards environmental damage. In addition, the poem also explains the lack of human responsibility towards nature. This poem also highlights how humans are responsible for environmental damage. This reflects the immorality of human actions and the lack of social awareness in protecting the environment.

## PRIMATA DI HUTAN SISA Ahmad Maliki Mashar

Di dahan ringgas tak lagi rindang Sepasang ungka sebut itu bergelantungan Mencari sisa yang ditinggalkan burung enggang Tadi pagi On dead branches no longer leafy
The pair of ungka were hanging
Looking for remains left
by hornbills this morning

Tangan panjangnya menjangkau dahan-dahan kurus
Harum bunga-bunga luka,
pada rerantung semakin menua
Sesekali suaranya bergema
menyambut surya baru jaga

His long hands reached out to the thin branches
The fragrance of wounded flowers,
on the branches getting older
Occasionally his voice echoes to greet
the rising of a new sun

Kedamaian prasmanan hanya sebentar Gerombolan primata lainnya berdatangan Mencari sisa-sisa, tak peduli milik siapa Kasar dan memaksa

True peace only lasts for a moment
Another group of primates arrived
Looking for scraps, no matter who they belong
Rude and force

Sepasang ungka bersabutpun bersurut Meninggalkan kericuhan sedang sempurna Berebut dari sisa-sisa (Mashar, 2024)

A pair of ungka chirping back and clam up Leaves a perfect mess Scramble from the scraps (Mashar, 2024)

Sekara. 12 Juli 2024

Sekara. 12 Juli 2024

#### **Ecological Criticism in the Form of Deforestation** (Wilderness)

Eco-criticism itself focuses on the relationship between humans and nature, one aspect of which is animals. In addition, Ecocriticism also emphasizes empathy for animal rights (Pamungkas et al., 2018). Thus, Ecocriticism has Poetry "Primata di Hutan Sisa" (Primates in Remnant Forests) explains how nature is being destroyed through the exploitation of forests and human indifference to the environment, especially forests and primates. This poem describes the increasingly negative degradation of the natural environment. In addition, the poem also explains how the relationship between humans and nature is not harmonious. The exploitation of nature and its consequences are the result of the disharmony between humans and nature.

Deforestation of forests causes a reduction and loss of habitat for various types of wildlife (Sodik et al., 2019). Deforestation causes the loss of land and wildlife habitats. In line with this, the poem describes the deforestation that is mentioned in the following excerpt "On dead branches no longer leafy" The quote indicates the existence of

deforestation, This is also evident in the quote "On dead branches no longer leafy" The phrase "no longer lush" is key in indicating that the forest has been exploited by humans.

#### The Impact of the Environmental Crisis (Animal)

The deforestation of the forest has caused many problems, one of which is the loss of habitat and food for the wild animals that live in the forest. This problem is also raised in this poem in the quote, "The pair of ungka were hanging, Looking for remains left by hornbills this morning." This quote highlights the problems arising from deforestation, specifically the imbalance in natural resources due to the loss of habitat and feeding grounds for the ungka, leading them to become "ferocious" and uncontrollable as their foraging areas shrink and disappear. From this, the ungka transformed into uncontrollable animals that would do anything to obtain food, including searching for leftovers and disturbing humans. This is evident in the following quote: "True peace only lasts for a moment Another group of primates arrived Looking for scraps, no matter who they belong to Rude and force." This quote illustrates the impact of environmental exploitation, specifically the behavior of primates like ungka who forcibly raid food supplies.

In addition, this poem shows that humans should protect the existence of other creatures around them. They should not only focus on their own interests by exploiting forests without considering the impact and the creatures that live there. Humans should use natural resources without exploiting the environment and ultimately causing harm to many parties. In reality, humans and nature are an integral whole, mutually dependent on one another. The integration between humans and nature is a reality that demonstrates the existence of connections, interdependence, and the unity of their relationship (Garrard, 2004; Pamungkas et al., 2018).

From the various quotations and explanations above, this poem explains that there is an educational value in the form of "social awareness". This poem describes a social situation in which people prioritize their own desires and interests or those of their group, without thinking about or considering how this will impact the future. This poem also explains the importance of social awareness in sharing and cooperating and avoiding selfish behavior that can harm many parties, one of which is nature.

## ARUS HILANG DI LUBUK LARANGAN Muhammad Sholeh Arshatta

Lihatlah nak, di subayang kampar	Look my child, at subayang kampar
Aku mulai ditampar cemas	I started to get anxious
Melihat rimbang baling tercemar	Seeing the polluted propeller blades
Arusku mulai dijengkal dangkal	My current is starting to get shallow
Ikan-ikan terubuk tak lagi datang	The reef fish no longer come

Semua menghilir hilang dari lubuk Aku merasa jadi gubuk tak layak huni

Di lubuk larangan
Aku rindu ikan tengadak berkecipik
Menyaksikan kepala kerbau dilepas nikik mamak
Gondang ougang batmang dikidungkan
Seiring tabuh gendang
Mewarnai orang bersenang-senang

Kini semua sungsang
Sejak aroma tak potas sering lalu-lalang
Dan merkuri membumbui badan
Buih-buih deterjen tak ramah
Dan sepah-sepah rumah
Rakus merampas deras arus
Lubuk larang bertudung sunyi
Aku menjelma aquari mati
Sejak pasang-surut tak berdenyut lagi

Pekanbaru, 21 september 2024

\* Gondang ougang batmang:tradisi ibu-ibu menuturkan kalimat nasihat kepada anak yang
ditimang sembari diiringi gendang
(Arshatta, 2024)

Everything downriver disappeared from the depths
I feel like I'm in an uninhabitable hut

In lubuk larangan
I miss the tengadak fish moving
Watching a buffalo head being removed by a nikik mamak
Gondang ougang batmang is sung
As the drums beat
Coloring people having fun

Now all are upside down
Since the smell of poison often comes and goes
And mercury spices the body
Unfriendly detergent foam
And the remains of the house
Greedy seizes the strong current
Lubuk larang with a silent cover
I transformed into a dead aquari
Since the tides no longer beat

Pekanbaru, 21 september 2024

\* Gondang ougang batmang: tradition of mothers giving advice to their children while being rocked accompanied by gendang

(Arshatta, 2024)

#### **Ecological Criticism in the Form of Watter Pollution** (*Pollution*)

Subayang Kampar is a sacred river that is also used as a source of livelihood for the community to fish and as a sacred place because it is used as a venue for local cultural rituals. However, over time, the river has become polluted by waste caused by humans. The waste consists of household waste and factory waste. Some of the damage to the river is described in a poem entitled "Arus hilang di lubuk larangan" (The current disappears in the Lubuk Larangan).

This poem describes ecological damage in the form of water pollution in the Subayang Kampar River. The Subayang Kampar River is no longer suitable for use due to water pollution in the form of piles of trash, as described in the quote, "Seeing the polluted propeller blades My current is starting to get shallow." The quote explains that the river has begun to shallow due to water pollution in the form of trash accumulating at the bottom of the river, causing it to shallow.

#### Adverse Impacts on the Environment and Fish Habitats (Animal and Earth)

The following excerpt shows the longing of the community to carry out traditional activities such as "Gondang ougang batmang" which involves the Lubuk Larangan River. However, due to water pollution in the river, this activity cannot be carried out. This is evident in the quote, "I miss the tengadak fish moving Watching a buffalo head being removed by a nikik mamak" which reflects the community's longing for the fish in the river and the tradition of releasing buffalo into the river without fear. However, the water pollution has led to the loss of this tradition and the destruction of the fish's habitat.

The following excerpt also shows water pollution in the form of dirty and foul-smelling water. This is evident in the excerpt, "Now all are upside down Since the smell of poison often comes and goes" This excerpt shows water pollution in the form of a mixture of chemicals and household waste produced by humans, causing the stagnant water to produce an unpleasant odor. This shows that there is environmental damage in the form of water pollution caused by human indifference to environmental cleanliness, particularly water. The result of this problem is not only unpleasant-smelling water, but also fish that cannot reproduce, making the water unusable by the wider community due to its odor and unsuitability for use.

The above quotes illustrate how society is unable to preserve its existing culture. This is due to people's indifference towards nature, namely the preservation of "Lubuk Larangan" This place is a cultural site, but the culture cannot be revived because the river is polluted. This tradition is now being eroded by the changing times and human greed. Furthermore, this poem describes humanity's indifference to social responsibility towards the environment and the importance of preserving cultural heritage, one of whose functions is to protect nature and the survival of society. In addition, this poem explains how responsibility for the environment is not only an individual responsibility but also a collectiveone.

## UNTUK HUTANKU Heddy WS

Sayup jauh pada irama,melankolis
Lagu hutanku terbabat kesedihan
Parau suara terhuyung limbung
Sempoyongan terhantam derak tumbang pepohonan
Berdebum keras menghujam patah
Gelisah dengan selaksa luka di tanah

Faintly in the rhythm, melancholic
The song of my forest is filled with sadness
A hoarse voice staggers and wobbles
Staggering, struck by the crash of falling trees
A loud thud as they hit the ground
Restless with a thousand wounds on the ground

Menggigil demam di tengah teriakan bengis mata gergaji Dilibas tapak tilas buldoser hitam Shivering with fever amid the vicious screech of chainsaws Trampled by the tracks of a black bulldozer Mencabik-cabik tanpa belas berdarah-darah Mencabut ruh Menunggu mati di tanah

Kemarau segera tiba tanpa salam
Kerontang akan menyambar belantara
Setitik unggun menciptakan malapetaka
Menguras air mata tetumbuhan yang tersisa untuk dijaga
Sesak mengah napas belantara renta
Menyiratkan sinyal harmoni kehidupan
Ketika kayu mati
Jantung kita pun turut berhenti
Cimahi – Ditulis Dalam Perubahan.
(WS Henndy, 2023)

Tearing apart without mercy, bloodied
Extracting the soul
Waiting to die on the ground

The dry season will soon arrive without warning.

The wilderness will be engulfed in flames.

A single spark will cause disaster.

Draining the remaining tears of plants to be preserved

The suffocating breath of the aging wilderness

Implies a signal of harmony in life

When the wood dies

Our hearts also stop

Cimahi – Written in Change.

(WS Henndy, 2023)

#### **Ecological Criticism in the Form of Deforestation** (Wilderness)

The poem titled "Untuk Hutanku" (For My Forest) tells of the disharmony between humans and nature. Nature and forests should be home to various ecosystems and the lungs of the world (Romarak et al., 2021). However, this did not happen because of excessive exploitation by humans through logging and clearing forests. This can be seen in the quote, "A hoarse voice staggers and wobbles Staggering, struck by the crash of falling trees, A loud thud as they hit the ground." This quote shows the sound of trees falling due to exploitation of the forest through logging.

In addition, evidence of forest exploitation can be found in the quote, "Amidst the vicious screech of chainsaws, Bulldozed by the tracks of black bulldozers". The quote shows the exploitation of forests by clearing them with "chainsaws" and bulldozing them with "bulldozers". In addition, the poem also describes the recklessness of humans in excessively destroying forests. This is evident in the quote "Tearing apart without mercy, bloodied" and evidence of the destruction of forests and land can be seen in the quote "Waiting to die on the ground". The meaning of the quote is trees. The forest was cut down and cleared, causing the trees to die because they were no longer rooted in the ground.

## Adverse Effects in the Form of Forest Fires and Respiratory Diseases (Wilderness and Apocalypse)

In addition, if humans do not take good care of the forest, it will also bring disaster to humans. This will happen when drought comes. If there is a "spark," it will cause a forest fire. This is evident in the quote, "A single spark will cause disaster" This quote explains that if humans do not take good care of the forest, it will have a negative impact on humans themselves. Humans will feel the significant impact of air pollution caused by forest and land fires, which also increases the risk of spreading acute respiratory infections (ARI)/(ISPA) and causes more serious diseases such as bronchitis and pneumonia (Maulia, 2024). In line with this statement, there are many impacts, especially diseases. The following is a quote that shows the impact of the fire, which is causing respiratory diseases, or in the poem, it is found in the quote "suffocating breath of the aging wilderness".

Next is the warning of the impact of natural destruction. The impact of natural destruction will not only be felt by flora and fauna. The destruction of forests will have a real impact in the form of disasters such as floods and landslides. This is reflected in the quote, "When the wood dies Our hearts also stop" This poem highlights the importance of protecting forests. Forests sustain human life, and if humans fail to protect them, it will have negative consequences for humans themselves, such as flooding, due to reduced water absorption. In line with this conclusion, according to Hartati & Karim, (2024), unethical human behavior, including logging, large-scale forest burning, indiscriminate waste disposal, and large-scale development, will have an impact and change the natural order, damaging nature and causing natural disasters.

The poem describes the forest as part of God's creation that should be protected by humans. By destroying nature, humans have betrayed the mandate given to them by God, namely that humans are God's representatives on earth. The phrase "Extracting the soul Waiting to die on the ground" illustrates the destruction of the ecology. This is one form of human cruelty to nature, which is one of God's creations. This poem also illustrates that humans have an obligation to care for nature and condemns humans who are greedy and irresponsible in exploiting forests without considering the future impact. This poem conveys a moral message about the importance of collective responsibility in preserving nature.

#### MENDULANG PERADABAN

(Kapal Korek Tambang Emas Belanda Di Logas)

Gimin Saputra

Kini kamu hanya membisu Didera harapan penuh deru waktu Suara berisik tiada terdengar lagi Now you are silent
Tormented by hopes full of the roar of time
No more loud noises

Mondar-mandir kesibukkan tiada terlihat lagi

Kini kamu menyendiri Dihantam panas siang hari Dihunjam dingin malam bertambah tua Semua lupa kalau kamu pernah jaya

> Dulu kamu diagungkan Hasil kandungan kamu dikuras Diambil para kaum penjajahan Terkenal dengan emas Logas

Tahun 1927 isi perut kamu mulai digali Dengan 13.000 hektar memanjang di sepanjang sungai Tahun 1936 kamu dibantu Kapal Korek Harlem Belanda Untuk menarik kilau emas di Pantai Timur Sumatera

> Puluhan kilo kamu diproduksi Triliunan rupiah kamu hasilkan Ratusan orang kamu pekerjakan Sungguh luar biasa beroperasi

Kini hanya sebuah mendulang peradaban Semenjak 1942 tiada lagi dipergunakan Hingga kapal pun habis raib Oleh tangan yang tiada bertanggung jawab

Kini menggigil disendirikan Berlumut dibiarkan tiada belaian Seakan orang-orang lupa akan mendulang peradaban Tentang sebongkah emas dari tanah Kuantan

Kini keadaanmu, dahulu hanya menjadi perbincangan Walau terkadang penuh pilu dan siksaan Kadang disudutkan orang-orang lalu lalang diselingi siulan Bahkan terlupakan dalam buku sejarah sebagai catatan Begitu pilu nasibmu yang punah dipreteli warga

> (Gimin Saputra) Petapahan, 12 Januari 2024

The busy pacing is no longer visible

Now you are alone,
Beaten by the heat of the day,
Pierced by the cold of the night, growing old.
Everyone has forgotten that you were once glorious

Once you were revered Your riches were plundered Taken by the colonizers Famous for the gold of Logas

In 1927, your stomach began to be dug up With 13,000 hectares stretching along the river In 1936, you were assisted by the Dutch ship Korek Harl to extract gold from the east coast of Sumatra.

You produce tens of thousands of kilos You generate trillions of rupiah You employ hundreds of people Your operations are truly remarkable

Now it is just a relic of civilization Since 1942, it has no longer been used Until the ship disappeared completely By irresponsible hands

Now shivering in isolation,
Mossy and neglected,
It is as if people have forgotten to harvest civilization,
About a chunk of gold from the land of Kuantan.

Now your situation, It used to be just a discussion

Even though it was sometimes full of sorrow and tormen

Sometimes cornered by passersby accompanied by whist

Even forgotten in history books as a mere footnote

How sad is your fate, extinct and torn apart by the people

(Gimin Saputra) Petapahan, 12 Januari 2024

## **Ecological Criticism in the Form of Mining Exploitation** (Earth)

The poem titled "Mendulang Peradaban" (Reaping Civilization) is a poem that criticizes human exploitation and indifference towards the environment. The poem explains how human actions have impacted the environment, which once had abundant resources but is now degraded and damaged due to irresponsible human actions. This poem will show the damage and exploitation of natural resources and remind us of the importance of protecting and preserving nature.

This poem describes how nature or a place that once had natural resources, especially gold mines, has been exploited by humans who are described as colonizers. "Once you were revered, Your riches were plundered, Taken by the colonizers". The quote shows how humans, in this case colonizers, exploit natural resources without considering the impact. This illustrates the excessive exploitation of nature for human gain.

Evidence of exploitation of nature in the form of gold mining can be found in the excerpt. "In 1927, your stomach began to be dug up, With 13,000 hectares stretching along the river, In 1936, you were assisted by the Dutch ship Korek Harlem to extract gold from the east coast of Sumatra". The exploitation of natural resources will have a negative impact on nature in the form of "heavy metal contamination". This is in line with what Putri Oktariani (2024) explained, namely that Landfills generally contain heavy metals that are harmful to the environment.

This explains that if former mining sites are not relocated, the impact will be harmful to the environment because former mining sites contain hazardous substances. In addition, this poem also explains how humans neglect the nature they have used, even though they like to exploit and plunder the earth's resources. This can be seen in the following excerpt "Now it is just a relic of civilization" and "Until the ship disappeared completely". The quote also criticizes people who are not responsible for their actions.

In essence, companies that have conducted mining operations should reclaim the land that has been mined (Oktorina, 2018). This is done to restore the former mining land so that it can be used again. However, in reality, this is not the case. Many companies/communities do not care about this issue. In line with this statement, the following quote shows humanity's indifference towards the former mining environment "Sometimes cornered by passersby accompanied by whistles". This quote shows a lack of concern for the environment, with people choosing to be indifferent to it. This is reinforced by the quote "cornered by passersby accompanied by whistles". Even in the quote, it explains that sometimes people mock or ignore the former swamp land. This illustrates how low social values and concern for the surrounding environment are. The poem explains how gold mines were once a source of livelihood for the community. However, after the mines could no longer produce gold, people left, demonstrating a lack of social responsibility in preserving nature and these relics.

## ARUS HILANG DI LUBUK LARANGAN Muhammad Sholeh Arshatta

1/

Tak usah kau memeram gelisah pada hujan yang Mencurah, walau sekejap cuma.
Paling tidak basahlah sudah semak-semak samun, parit-parit yang kerontang.
Pun hamparam gambut yang disekap bahang nyala api dan kemarau yang panjang memenjarakannya dalam beberapa pekan, beberapa purnama yang telah kita singgahi

Di musim-musim sebegini kering,
tak ada gunanya kau sesali hari-hari yang pedih
Segala perih sesungguhnya adalah ujian
agar kau saksikan seberapa besar karunia Tuhan
yang telah kita nikmati,meski
Dia tak pernah meminta kita
untuk membalas semuanya,
dengan ucap kalam syukur,
pada papan-papan reklame, baleho,
maupun sepanduk-sepanduk
menghiasi ruas-ruas jalan
dan tiap persimpangan

2/

Sekurang-kurangnya bersama Kamis pekan ini, kau merasakan lagi sejuk dingin hari. Walau esok belum tentu kau temui langitmu sebegini indah, menanti hujan datang menyimbah, bersembang-sembang mengurai semua gundah

Mungkin kita telah ditakdirkan Tuhan,
mesti selalu mendengar ratap gelisah,
derita yang sesungguhnya adalah
cambuk-cambuk kecil
agar kita tahu menyisakan setumpuk kebijaksanaan
dan demi setiap kebijaksanaan
yang disusun sedemikian rapi,

1/

Don't worry about the rain that pours down, even if only for a moment.

At least the bushes are wet, the ditches that were dry.

Even the peat swamp, trapped by the heat of the flames and the long drought, imprisoned it for several weeks, several full moons that we have visited.

In seasons like this, when it is dry, there is no point in regretting the painful days.

All pain is actually a test so that you can see how great God's blessings are that we have enjoyed, even though He never asks us to repay everything, with words of gratitude,

On billboards, posters, and banners decorating the streets and every intersection

2/

At least this Thursday, you will feel the coolness of the day again. Although tomorrow you may not find your skythis beautiful, waiting for the rain to come pouring down, chatting away, unraveling all my worries

Perhaps it is God's will that we must always hear the cries of anxiety.

the real suffering
is small whips
so that we know to leave a pile of wisdom and for the sake of every wisdom which was arranged so neatly,

sistematis, terukur dan teruji di balik meja-meja kerja kita, jauh-jauh hari lagi sebelum tragedi mengerdipkan mata api untuk yang ke sekian kali

3/

Dedaunan pagi bersiul manja, riang menyambut ketibaan hujan Semilir angin utara pun mengisyaratkan cinta sebab bermusim-musim ia berpeluk luka, dikungkung jerebu; kabut asap tak sudah-sudah dari segenap penjuru, rantau dan jazirah

4/

Asap kebakaran hutan dan lahan yang kau risaukan itu, pagi ini telah menyatu bersama mendungmendung yang berarak kelabu seketika ia menyepi dari sudut-sudut ruang pandang kita yang menyembunyikan sebaris senyum gigil pokok hari tanpa hangat sinar mentari Kita seringkali leka pada tangan-tangan kita sendiri yang selalu menyulut duka. Maka sebaiknya patahkan saja nestapa sebelum semua menjadi sia-sia

5/

Esok semarakkanlah senyumanmu itu lewat kabut-kabut yang mengirimu pesan Tuhan walau hujan pagi ini sebentar cuma, sekadar untuk bersua, menyapa dan bertanya hal ihwal tentang kita menjaga titah kuasa, amanah-Nya sepanjang masa

> (Apa kabar asapmu pagi ini Riau-ku. Semoga tak menyulut debar dan risau yang baru) Bengkalis, Agustus 2019

systematically, measurably, and thoroughly behind our desks, long before the tragedy flashed its fiery eyes for the umpteenth time

3/

The morning leaves whistle playfully, joyfully welcoming the arrival of rain. The northern breeze also hints at love, because season after season it embraces wounds, enveloped in haze; endless smog from all corners, islands and peninsulas.

4/

The smoke from forest and land fires that youare worried about, this morning has merged with the clouds that drift by gray. immediately he disappeared from the corners of our field of vision which hid a line of shivering smiles without the warmth of the sun We often forget our own hands that always stir up sorrow. So it's best to break the misery before everything becomes futile

5/

Tomorrow, let your smile shine brightly through the mist that carries God's message to you. Even though this morning's rain is only brief, Just to meet, greet, and ask questions about us upholding his authority and his mandate throughout the ages

(How are you doing this morning, my Riau.

I hope the smoke isn't causing any
new anxiety or worry)

Bengkalis, Agustus 2019

#### **Ecological Criticism in the Form of Forest Fires** (Wilderness)

This poem, titled "About Smoke, Rain, and Us," discusses the relationship between humans and nature. The poem gives us an understanding that we, as humans, should not only see nature as a natural resource that can be exploited, but also as an important part of human sustainability. Because if humans continue to exploit nature, it will have a negative impact in the future due to the exploitation that humans are currently doing (Weningtyas & Widuri, 2022). However, on the other hand, human behavior does not match expectations.

Environmental criticism in the poem can be seen in the quote "the peat swamp, trapped by the heat of the flames" This refers to environmental damage, particularly forest and peatland fires, which often occur due to human activity. This reflects the exploitation of natural resources, which has led to land degradation. "The morning leaves whistle playfully, joyfully welcoming the arrival of rain". This quote shows personification, where nature is portrayed as a living entity that has emotions and responds to its environment. The quote "waiting for the rain to come pouring down" shows the symbol of recovery from nature that has suffered for a long time. Showing symbols of recovery from nature that has long suffered.

#### Adverse Effects in the Form of Forest Fires (Wilderness and Apocalypse)

The poem also expresses the lamentations of nature, symbolized by the quote, "season after season it embraces wounds". The use of the phrase "Berpeluk luka" (embracing wounds) in the quote shows that nature has long suffered from human activities. Jerebu, or haze, explicitly shows environmental damage in the form of forest fires that cause air pollution and smog embedded in the quote "From all corners, islands and peninsulas" explains that the impact of these fires is widespread globally. This also shows the impact on the wider community.

This poem highlights the destructive relationship between humans and nature, particularly human actions that harm nature by causing smoke and forest and land fires. The phrase "our own hands that always stir up sorrow" describes humans who must take responsibility for the damage they have done to nature. The quote also explains that humans play the biggest role in causing the ecological crisis that has occurred.

The poem also explains the symbols of environmental damage in the form of smoke, clouds, and blocked sunlight, which are metaphors that actually refer to "smoke from fires". Several quotes that indicate natural imbalance are found in the quote "smoke from forest and land fires" which shows the symbol of land destruction in the form of forest fires caused by humans. Then, the quote "gray clouds" shows the result or consequence of the fires, which is the appearance of smoke, referred to in the quote as "gray clouds". Then there is the quote "merged with the clouds that drift by gray," which refers

to the result or consequence of the fire, namely the appearance of gray smoke due to the forest fire.

The poem also explains how humans are criticized for being negligent and not protecting the forest as they should. This is evident in the quote, "forget our own hands" which emphasizes how humans are still oblivious to the short-term or long-term impacts of their actions when exploiting and destroying nature.

In addition, this poem not only examines criticism of humans for their moral behavior towards the environment. It also calls on humans to stop destroying the environment before it is too late. This is evident in the quote, "to break the misery before everything becomes futile" which means that before everything is destroyed, humans must stop destroying nature. Through this poem, there is criticism that describes the disharmony between humans and the environment, while also criticizing humans who cause damage to nature and its contents. In addition, this poem also invites us to take action to prevent further destruction of nature.

In addition, this poem describes the suffering and challenges of life caused by smoke from fires, which represents a test from God for humans. Furthermore, the poem also criticizes humans for their negligence, which causes natural disasters. In accordance with the poem, this refers to forest fires. This is explained in the quote, "We often forget our own hands that always stir up sorrow." The word "Leka/Forget" which means 'careless' and "causing sortow" serves as an important reminder of the responsibility all humans have to protect the environment.

#### Conclusion

Based on the results of the research and discussion that has been conducted, the following are the conclusions. The six poems featured on the Riau Sastra website demonstrate the values of ecocriticism, including exploitation of nature, deforestation, water pollution, air pollution, disasters, and animals (exploitation of animals). Additionally, there are numerous educational values in this study that can convey many messages to readers, encouraging them to better understand and care for nature. The six poems analyzed are not only reading material but also a source of messages and information that will impact understanding of the environment and the educational value of preserving it. The poems from the Riau literature website describe the many environmental problems caused by human interests. This research also emphasizes the need for strong efforts to understand and raise awareness of the importance of environmental criticism and education through literary appreciation, one of which is poetry. Additionally, efforts are needed to build an understanding of the importance of preserving the environment and its various aspects, such as avoiding pollution of water, air, and soil, preventing excessive deforestation, and avoiding the exploitation of natural resources for future interests. The poems in Riau Sastra represent

issues such as natural resource exploitation, deforestation, water pollution, air pollution, natural disasters, and animal exploitation. Additionally, these poems also represent educational values that convey numerous messages to readers. Poems are not merely reading material but also a source of messages and information that can enhance understanding of the environment and the importance of environmental education. Therefore, there is a need for strong efforts to understand and convey the significance of environmental criticism and education through literary appreciation, with poetry being one such medium.

The implications of this research show that literary works are one form of representation of life written in a creative form. Through this creative process, a literary work is produced. Through this literary work, social realities, cultural values, and human experiences are deeply reflected. A literary work contains many implicit messages gathered through poetry and is hoped to serve as a bridge for readers to understand the importance of preserving nature. These messages are not conveyed directly but are gathered through imagery, symbols, and emotions found in the poetry. Thus, poetry also serves as a bridge for readers to reflect on and understand how literary works can inspire readers to continue preserving the environment as part of a shared responsibility. The results of this study are expected to provide insights into the ecological value of literature and its educational value for readers. Additionally, this literary work in the form of poetry can serve as a bridge to convey the ecological values of literature and its educational value. Furthermore, this study still has several limitations. One of them is the method, which uses qualitative description and analysis that is still focused on the ecological value of literature and its educational value. Therefore, there is still a possibility of differing interpretations if analyzed from another perspective.

#### References

- Amri, U. (2011). Globalisasi dan Dampaknya terhadap Lingkungan dan Keamanan Manusia di Asia Pasifik: Kasus China dan Papua Nugini. *Jurnal Kajian Wilayah*, *1*(1), 56–71. http://ejournal.lipi.go.id/index.php/jkwpsdr/article/view/321
- Arshatta, M. S. (2024). *Arus Hilang di Lubuk Larangan*. Www.Riausastra.Com. https://www.riausastra.com/2024/10/15/puisi-arus-hilang-di-lubuk-larangan/
- Charismana, D. S., Retnawati, H., & Dhewantoro, H. N. S. (2022). Motivasi Belajar Dan Prestasi Belajar Pada Mata Pelajaran Ppkn Di Indonesia: Kajian Analisis Meta. *Bhineka Tunggal Ika: Kajian Teori Dan Praktik Pendidikan PKn*, 9(2), 99–113.
- Despriana, A., & Rianti, D. P. (2024). Analisis Peran Pendidikan Kelestarian Lingkungan dalam Membentuk Kesadaran Lingkungan di Kalangan Generasi Muda. 1(2).
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. https://doi.org/10.1111/j.1365-

- 2648.2007.04569.x
- Fadila, D., & Israhayu, E. S. (2023). Kritik Ekologi dalam Buku Kumpulan Puisi Selepas Musim Menjauh Karya Ahmad Sultoni. RUANG KATA: Journal of Language and Literature Studies, 3(02), 183–200. https://doi.org/10.53863/jrk.v3i02.1031
- Flannery, E. (2016). Ecocriticism. In *Year's Work in Critical and Cultural Theory* (Vol. 24, Issue 1, pp. 419–438). https://doi.org/10.1093/ywcct/mbw020
- Garrard, G. (2004). Ecocriticism. Routledge.
- Genoveva Larasati, & Elly Purwendah. (2022). Penerapan Prinsip Pencemar Membayar Terhadap Pencemaran Limbah Bahan Berbahaya Dan Beracun (B3). *Jurnal Locus Delicti*, *3*(2), 165–181.
- Gifford, T. (2011). Pastoral, anti-pastoral, and post-pastoral. In *The Cambridge Companion to: Literature and the Environment*.
- Hartati, D., & Karim, A. A. (2024). *Kajian Ekologi Sastra pada Puisi-Puisi Kontemporer di Indonesia Wayan Sunarta*, *Raudal Tanjung Banua*, *Viddy Ad Daery*, *Syaifuddin Gani*, *I Gusti*. 10(1), 1–20. https://doi.org/10.24235/ileal.v10i1.15454
- Ibrahim, S., & Anggraini, N. (2022). Nilai Pendidikan Lingkungan Dalam Karya Sastra Indonesia Tahun 2020. *Jurnal Sasindo UNPAM*, 10(1), 30. https://doi.org/10.32493/sasindo.v10i1.30-37
- Listiyani, N. (2017). Dampak Pertambangan Terhadap Lingkungan Hidup Di Kalimantan Selatan Dan Implikasinya Bagi Hak-Hak Warga Negara. *Al-Adl : Jurnal Hukum*, *9*(1), 67. https://doi.org/10.31602/al-adl.v9i1.803
- Mashar, A. M. (2024). *Primata Di Hutan Sisa*. Www.Riausastra.Com. https://www.riausastra.com/2024/10/24/puisi-primata-di-hutan-sisa/
- Masjid, A. Al, & Pamungkas, O. Y. (2024). Ecocriticism-Based Curriculum Development Strategies in Indonesia Universities: Evaluation and Recommendations. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, *16*(2), 1193–1208. https://doi.org/10.37680/qalamuna.v16i2.5734
- Maulia, S. T. (2024). Analisis Dampak Polusi Udara Akibat Kebakaran Hutan Dan Lahan Serta Upaya Pengurangannya Dalam Mempertahankan Ketahanan Energi. *Jurnal Ketahanan Nasional*, 29(3), 384–400. https://doi.org/10.22146/jkn.92761
- Maulidiah, N., Waluyo, H. J., & Subiyantoro, S. (2020). Nilai Pendidikan dalam Syair Kesenian Tundang Mayang Karya Eddy Ibrahim. *Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, 5(September), 107–111. p-issn: 2477-5932 e-ISSN: 2477-846X
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. California: Sage publications.
- Monalisa. (2013). Program Adiwiyata Dalam Pengelolaan Lingkungan Sekolah di SMPN 24 Padang. *Jurnal Pendidikan Geografi*, *I*(1), 3.
- Mu'jizah, Sapawuryandari, N., Atisah, M, Y., Purwaningsih, Sunarti, S., Rohim, Moses, F., Syahrul, N., Purwaningsih, & Mujiningsih, N. (2023). *Sastra & Ekologi* (M.

- Sapawuryandari & Nurweni (eds.)). Penerbit BRIN.
- Nadin Natari. (2024). *Rasa Riau*. Www.Riausastra.Com. https://www.riausastra.com/2024/11/03/puisi-rasa-riau/
- Nasution, I. (2008). Sistem dan Kode Semiotika dalam Sastra: Suatu Proses Komunikasi. Jurnal Ilmiah Bahasa Dan Sastra, IV(2), 109.
- Oktorina, S. (2018). Kebijakan Reklamasi Dan Revegetasi Lahan Bekas Tambang (Studi Kasus Tambang Batubara Indonesia). *Al-Ard: Jurnal Teknik Lingkungan*, 4(1), 16–20. https://doi.org/10.29080/alard.v4i1.411
- Pamungkas, O. Y., Kholifatun Muslifah, F., & Istiqomah, U. (2023). Relevansi Nilai Pendidikan Karakter dalam Novel Hilanglah Si Anak Hilang Karya Nasjah Djamin dengan Silabus SMA. *Kawruh: Journal of Language Education, Literature and Local Culture*, 5(1), 10–21.
- Pamungkas, O. Y., Sudigdo, A., Fathonah, S., Fauzan, A., & Suroso, E. (2022).

  Representasi Lingkungan dalam Sastra Indonesia: Tinjauan Literatur Review. *Jurnal Kridatama Sains Dan Teknologi*, 4(02), 230–239.
- Pamungkas, O. Y., Widodo, S. T., Suyitno, S., & Endraswara, S. (2018). Ecocriticism: Javanese Cosmology and Ecoethic in Tetralogy Romance by Ki Padmasusastra. *International Seminar on Recent Language, Literature, and Local Cultural Studies (BASA 2018)*, 280(Basa), 430–439. https://www.atlantis-press.com/article/25906118
- Pamungkas, O. Y., Widodo, S. T., Suyitno, S., & Endraswara, S. (2021). Javanese cosmology: Symbolic transformation of names in javanese novels. *HTS Teologiese Studies / Theological Studies*, 77(4), 1–7. https://doi.org/10.4102/hts.v77i4.6593
- Rahayu, I., Suwarna, A. I., Wahyudi, E., Asfahani, A., & Jamin, F. S. (2024). Pendidikan Lingkungan Hidup dengan Membentuk Kesadaran Lingkungan dan Tanggung Jawab Sosial di Kalangan Pelajar. *Global Education Journal*, 2(2), 101–110.
- Romarak, A., Astra, Purwanto, I. M., Nadiro, A., & Nadiro. (2021). Dampak Penebangan Hutan Terhadap Bencana Banjir Di Kawasan Cagar Alam Pegunungan Cycloop. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 2(2), 446–452. https://doi.org/10.31004/cdj.v2i2.1905
- Schensul, J. J., Lecompte, M. D., & Schensul, S. L. (2015). Ethics in Ethnography Purpose of the Ethnographer'S Toolkit. In *Ethics in Ethnography: A Mixed Methods Approach*. AltaMira Press.
- Setiani, Y., Jusi, U., Neri Puspitasari, Silfia Rini, Nurhasnah, & Riswanda, R. (2023). Counseling on Peatland Cultivation and Conservation to Pekanbaru State Forestry Vocational School Students. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, 7(1), 35–41. https://doi.org/10.31849/dinamisia.v7i1.11325
- Sodik, M., Pudyatmoko, S., & Yuwono, P. S. H. (2019). Okupansi Kukang Jawa

- (Nycticebus javanicus E. Geoffroy 1812) di Hutan Tropis Dataran Rendah di Kemuning, Bejen, Temanggung, Jawa Tengah. *Jurnal Ilmu Kehutanan*, *13*(1), 15. https://doi.org/10.22146/jik.46141
- Stake, R. E. (2010). *Qualitative Research: Studying how things work*. The Guilford Press. Syamsuddin, I. S. (2024). Innovative Learning Strategies to Enhance Student Motivation and Academic Achievement: A Constructivist Learning Perspective in Islamic Religious Education. *International Journal of Scientific Research and Management*, 12(09), 3603–3613. https://doi.org/10.18535/ijsrm/v12i09.el04
- Weningtyas, A., & Widuri, E. (2022). Pengelolaan Sumber Daya Air Berbasis Kearifan Lokal Sebagai Modal Untuk Pembangunan Berkelanjutan. *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi*, 5(1), 129–144.
- WS, H. (2023). *Untuk Hutanku*. Www.Riausastra.Com. https://www.riausastra.com/2023/03/18/puisi-untuk-hutanku/