



Ecology, Folklore, and Land: *Kumpulan Cerita Rakyat Papua* as Preventive Education

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ABSTRACT

Papua faces significant environmental problems and agrarian conflicts due to the exploitation of natural resources. This condition underscores the urgent need for environmental education rooted in local wisdom to foster sustainable practices. This research aims to identify ecological elements within *Kumpulan Cerita Rakyat Papua*, a folklore collection published by *Balai Bahasa Papua* in 2017, and examine their relevance to environmental education policies in schools. Employing a qualitative descriptive method, this paper utilizes Greg Garrard's ecocriticism framework to analyse these elements. Purposive stratified sampling was used to select representative samples from 19 stories, followed by thematic analysis to uncover key themes. Data validity was ensured through the principles of trustworthiness including credibility, dependability, confirmability, and transferability. The findings reveal prominent ecological elements such as wilderness, animals, dwelling, the earth, pollution, apocalypse, and pastoral motifs, illustrating a harmonious humans-nature relationship in Papuan culture. Papuan folklore serves as a vital medium for transmitting ecological knowledge, which can be seamlessly integrated into school curricula, particularly in Indonesian Language subjects. By integrating ecological values into education, this research advocates for building environmental awareness from an early age, empowering younger generations to contribute to nature preservation and effectively addressing agrarian conflicts in Papua, reducing resource-driven tensions through informed, community-based learning.

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INTRODUCTION

Environmental issues in Papua Land have increasingly drawn attention due to the extent of human-induced degradation. In fact, these ecological conditions cannot be separated from agrarian problems. Papua is a region with a long history of land conflicts, in which indigenous communities' land rights frequently intersect with the interests of the government and corporations. The deforestation of customary forests (Romdanah & Ikomatussuniah, 2025), massive land-use conversion (Abrauw & Hamokwarong, 2025), and nickel mining activities in Raja Ampat (Syamsuddin & Sani, 2025) represent some of the most recent cases. Data from Nusantara Atlas in Gaveau (2024), estimate that the deforestation rate in Papua increased by 10%, from 22,500 hectares in 2023 to 25,000 hectares in 2024. Furthermore, the Agrarian Reform Consortium in Lahay (2024), reports 41 agrarian conflicts across 85,000 hectares of land, affecting approximately 83,000 families as victims. These conditions illustrate how agrarian conflicts generate not only environmental degradation but also social injustice.

Ihsan & Salim (2022) emphasize that issues of customary land remain a critical point in Indonesian agrarian policy, as the state tends to overlook customary mechanisms. Jaya et al., (2023) argue that resolving agrarian conflicts must be linked to land redistribution and the recognition of customary rights to ensure ecological justice. From an educational perspective, these phenomena call for new approaches, particularly those based on local wisdom.

One source of learning that can embody ecological wisdom is folklore. Yektiningtyas & Dewi (2023) state that folklore found in Papua generally contains traditional knowledge about flora, fauna, and norms in the use of natural resources. For example, there are prohibitions against damaging forests and lakes as sources of community life in Sentani folklore (Yektiningtyas et al., 2023).

The publication of *Kumpulan Cerita Rakyat Papua* by Balai Bahasa Papua (2017) reflects the condition of oral traditions that still contain traditional environmental knowledge. In relation to environmental issues in Papua, folklore functions not only as a medium of cultural preservation but also as an ecological record that preserves community perspectives on customary rights and their relationship with the environment. Thus, Papuan folklore has the potential to serve as a contextual knowledge source that can be integrated into education to foster environmental awareness.

Karmadi et al., (2023) argue that natural elements in folklore can contextualize students' lives. Wati et al., (2021) also state that local myths in literary works function to maintain the balance between culture and nature in society. Thus, Papuan folklore can be used as a medium for environmental education that not only instills values of environmental preservation but also fosters social awareness to prevent the recurrence of agrarian conflicts that harm communities.

To identify ecological elements, ecocriticism provides the most appropriate framework. Through Garrard's approach, researchers can identify representations of nature, human-environment relationships, and ecological perspectives embedded in the narratives (Hermawan & Wulandari, 2021). These findings form the basis for developing ecological and agrarian education grounded in the local wisdom of Papuan communities.

Ecological literary studies on folklore have been conducted, such as Ihzan (2021) who analysed ecology in the folktale *Kongga Owose*, and Lestari (2021) who examined literary ecology in Hubula folklore in Jayawijaya. However, these studies tend to focus solely on ecological elements without linking them to environmental education and the broader social context of Papua. In fact, environmental issues in Papua are closely related to complex social conditions, including deforestation, resource exploitation, and disputes over customary land. Therefore, a research about literary ecology in *Kumpulan Cerita Rakyat Papua* published by Balai Bahasa Papua (2017), which connects Garrard's ecocritical analysis with environmental education and social awareness of land conflicts, has not yet been identified.

The novelty of this research lies in the integration of literary ecology analysis with environmental education and the social context of Papua. While previous research has primarily highlighted the ecological messages of folklore, this research positions Papuan folklore as a body of work containing ecological values relevant to education in regions prone to agrarian conflict. This integration is supported by Nurlila & Fua (2022), who demonstrate the successful implementation of school policies incorporating environmental and local cultural content. Using Garrard's ecocritical approach, this research examines Papuan folklore not only as a medium for conveying environmental values but also as a resource with strong potential for environmental education in Papua.

METHOD

This research employs a qualitative descriptive method. This method is chosen because it can reveal representations of human and nature relationships depicted in literary works (Usman & Monash, 2025). The analysis focuses on ecological aspects in the literary texts, while the social context of agrarian conflict is used to strengthen the relevance of the environmental education developed from the findings.

Kumpulan Cerita Rakyat Papua published by Balai Bahasa Papua (2017) is used as the data source. Given that there are 19 stories, purposive stratified sampling is employed to select samples based on landscape types. Through this approach, the samples can represent the diversity of Papuan regions, such as rivers, coastal areas, mountains, and wetlands (Ahmad & Wilkins, 2024). In addition, this landscape diversity reflects the unique perspectives of communities toward natural resources and their environment.

In this research, purposive stratified sampling is conducted by grouping the 19 stories according to landscape types in Papua, namely swamp ecosystems, mountainous areas, coastal/marine areas, and river. The researcher then purposively selects stories that are the richest in ecological information. Thus, the selected stories genuinely represent Papua's ecological diversity and provide a strong basis for analysis.

Table 1. Research Sample

Title	Origin	Rationale
<i>Asal Mula Munculnya Cesar Pak, Penghuni Muara Sungai Ayip (The Origin of Cesar Pak, Inhabitant of the Ayip River Estuary)</i>	Asmat Regency, South Papua	Demonstrates the relationship between Asmat community, river , and mythological beings.
<i>Asal Mula Nama Kwiawagi dan Sungai Numba (The Origin of the Name Kwiawagi and the Numba River)</i>	Lanny Jaya Regency, Papua Highlands	Illustrates the connection of highland communities with nature in mountainous areas .
<i>Kisah Pulau Venue (The Story of Venue Island)</i>	Kaimana Regency, West Papua	Depicts the origin of an island, presenting the ecological narrative of coastal communities.
<i>Lelaki Penuh Luka (The Sickly Man)</i>	Merauke Regency, South Papua	Presents a story related to swamp ecology and the southern of Papua.

The ecocritical theory proposed by [Garrard \(2004\)](#) classifies ecology in literary works into seven categories: wilderness, animals, dwelling, pollution, the earth, apocalypse, and pastoral. This framework encompasses a broad spectrum, from local values to global dynamics, making it comprehensive for analysing human-nature relationships in literature. Furthermore, the data analysis technique employed is thematic analysis, which consists of: (1) comprehensive reading of the texts; (2) identifying and noting parts that represent nature, animals, and human-environment relations; (3) categorizing the data according to Garrard's ecological categories; (4) interpreting ecological meanings; and (5) drawing implications. According to [Kynge et al. \(2020\)](#), thematic analysis is commonly used in similar research due to its simplicity and systematic approach.

The principle of trustworthiness is applied to ensure the validity of the research. It consists of credibility, dependability, confirmability, and transferability ([Kakar et al., 2023](#)). Credibility is ensured by comparing findings with theory and previous research. Dependability is maintained by documenting the research process. Confirmability is supported by using direct quotations. Transferability is achieved through clear descriptions of the story context. This helps show the potential of ecological elements for environmental education in Papua.

FINDINGS

Overview of the Stories

The book of *Kumpulan Cerita Rakyat Papua* published by *Balai Bahasa Papua* (2017) contains stories from various regions of Papua. In this book, nature is not merely a setting but serves as a central source of moral and social values. The following is a general overview of the selected sample stories.

The first story, *Asal Mula Munculnya Cesar Pak, Penghuni Muara Sungai Ayip* written by SW, tells about Ufiripits who lives at the Ayip River estuary. His daily life is closely connected to nature, such as fishing, hunting, and using plants. He is later believed to become a guardian spirit of the river and forest. This story shows that nature is a sacred landscape that must be respected. If humans break the rules, ecological warnings may appear, such as thunder, lightning, and storms.

The second story, *Asal Mula Nama Kwiawagi dan Sungai Numba* by DM, tells about the life of people in Kwiawagi village in the highlands. They farm, hunt, and use shifting cultivation. The story describes a great flood that submerged the forest. Today, floods still occur and are often linked to this story. The disaster is seen as a warning that humans must maintain their relationship with nature.

The third story, *Kisah Pulau Venue* written by A, tells the origin of Venue Island in Cenderawasih Bay, believed to appear from a supernatural event. In the story, the island is personified as living and befriends a turtle. In real life, this island is known as a turtle conservation area in Cenderawasih Bay.

The fourth story, *Lelaki Penuh Luka* written by HU, tells about a man named Cinomana who lives in physical and emotional suffering. His condition worsens with the arrival of the evil Cinumhai. However, with the unity of his older brothers, Cinumhai is defeated. In this story, the river and swamp are important settings, not only as physical spaces but also as symbols of healing and spiritual reflection.

Overall, the four stories show the richness of Papuan ecological perspectives through rivers, mountains, coasts, and wetlands. These values can support environmental education based on local wisdom and strengthen awareness to protect nature. This is also a preventive step against ecological and agrarian conflicts in Papua.

Findings of Ecology Element

Garrard (2004) classifies ecological types as follows. First, pollution, which discusses environmental damage caused by humans. Second, pastoral, which portrays the countryside as a peaceful place. Third, wilderness, which emphasizes untouched forests. Fourth, apocalypse, which describes natural disasters. Fifth, dwelling, which explores how humans live with nature. Sixth, animals, which explains how humans

view animals. Lastly, the earth, which sees the earth as a shared entity to be protected. The following are the research findings.

Table 2. Findings of Ecology Element

Title	Element	Number
<i>Asal Mula Munculnya Cesar Pak, Penghuni Muara Sungai Ayip (The Origin of Cesar Pak, Inhabitant of the Ayip River Estuary)</i>	Dwelling	3
	Animals	2
	Wilderness	1
	Apocalypse	1
<i>Asal Mula Nama Kwiawagi dan Sungai Numba (The Origin of the Name Kwiawagi and the Numba River)</i>	Dwelling	2
	Animals	3
	Wilderness	1
	Apocalypse	3
	Pastoral	1
<i>Kisah Pulau Venue (The Story of Venue Island)</i>	Dwelling	2
	Animals	3
	Wilderness	1
	Pollution	1
	The Earth	1
<i>Lelaki Penuh Luka (The Sickly Man)</i>	Dwelling	2
	Animals	1
	Wilderness	2
	Pastoral	2
Total		32

Table 2 shows the ecological elements of dwelling and animals are the most dominant in the four samples. Although some elements appear in limited portions, they still enrich the ecological picture reflected in the stories. Further analysis is presented in the following discussion.

DISCUSSION

Analysis of Ecological Elements

a) *Asal Mula Munculnya Cesar Pak, Penghuni Muara Sungai Ayip*

The story of *Asal Mula Munculnya Cesar Pak, Penghuni Muara Sungai Ayip* shows a strong relationship between humans and nature, especially through dwelling and animals. The findings show that Ufiripits fishes in the river, uses plants for food and medicine, and hunts in the forest. These activities reflect dwelling, where humans live by adapting to the ecosystem.

“Every day he (Ufiripits) looks for food such as fish in the river, fruits, plants for gathering, and game animals in the forest” (p. 1).

Furthermore, the presence of a parrot portrayed as a spirit represents the animal's element, reflecting local beliefs where animals also hold spiritual meaning. This aligns with [Calvin et al. \(2021\)](#), who show that animal representations in literature strengthen awareness of harmony between humans and other beings.

"Two very beautiful parrots were flying here and there as if they were dancing" (p. 3).

The part that explains the bird as a spirit is as follows.

"Ucu Kamoraot is the embodiment of spirits that inhabit the hollow of a banyan tree. Ucu means banyan tree and kamor refers to the embodiment of spirits" (p. 6).

Besides dwelling and animals, this story also shows wilderness. The spirit of Ufiripits is believed to guard the Ayip River and its surroundings. This shows nature as a spiritual space. According to Garrard (2004), wilderness is not only about wild forests, but also how humans see nature as something sacred beyond their control.

"... the spirit of Ufiripits ... is believed by the community ... to guard and protect the Ayip River and its surroundings" (p. 24).

The apocalypse element appears in the story through the characters Omoraot and Bafaraot, who violate natural norms. They kill Ufiripits by spreading poison in the river. This act triggers thunder, lightning, storms, and dark fog covering the world. These phenomena represent apocalypse, where nature's anger serves as a warning against human wrongdoing.

"At night, there were thunder, lightning, strong winds, and fog. ... At that moment, the sago tree boats appeared as promised by Ufiripits to the two women who had harmed him" (p. 22).

These findings are supported by [Hermawan & Wulandari \(2021\)](#), who show that ecological disasters in Yogyakarta folklore function as symbols of punishment for human actions that damage nature. Thus, this story not only reflects the Asmat community's view of nature as living, but also serves as an educational text that teaches environmental sustainability and ethics in managing water resources. In the context of agrarian conflicts in Papua, this story reflects indigenous rights over rivers and forests that are increasingly taken over by economic interests. It conveys that uncontrolled exploitation leads to

ecological disaster. Therefore, the story of Ufiripits can be used in environmental learning to build ecological awareness from an early age in schools.

b) Asal Mula Nama Kwiawagi dan Sungai Numba

Although the ecological elements are dominated by animals and apocalypse, the story of *Asal Mula Nama Kwiawagi dan Sungai Numba* also shows human and nature relations through daily activities. The story describes Kwiawagi people as farmers who grow tubers and vegetables. Farming is mainly done by women, while men assist when needed because they hunt. This reflects dwelling, where humans live by adapting to nature (Garrard, 2004).

The depiction of a community that depends on nature shows the presence of traditional knowledge. Fiharsono et al. (2024) also confirm that folklore often contains traditional ecological knowledge. This knowledge can support conservation if used in education.

“The main livelihood of the people of Kampung Kwaiwagi at that time was farming. They planted tubers and vegetables” (p. 27).

In farming, the community uses a shifting cultivation system. This shows the *pastoral* element, reflecting rural life. It is also seen as a way to maintain soil fertility, which is not found in urban area.

“They used a shifting cultivation system, where when the old land was no longer fertile, they moved to find new land” (p. 27).

Karmadi et al., (2023) state that folklore containing farming or forest-gathering activities can be used as a source for learning biodiversity in schools. This shows folklore as a medium for ecological education that is close to daily life.

Regarding apocalypse, a major flood once occurred in Kampung Kwiawagi, submerging forests and killing animals. Some people relate this event to the folklore. From Garrard's (2004) perspective, his disaster reflects ecological imbalance due to disrupted human-nature harmony. In today's Papua, floods can also symbolize environmental damage from deforestation and land conversion. Therefore, this story is relevant for building ecological and agrarian awareness through school education.

The animal's element shows that fauna are not only food sources but also part of nature. Stories about hunting usually include norms on using animals wisely. Kik et al. (2023) show that hunting skills relate to ethnobiological knowledge. This means such stories indirectly teach ecological skills for sustainability.

This story also has strong agrarian meaning. The use of shifting cultivation shows ecological awareness and aligns with agrarian justice, where land is managed collectively for sustainability (Kamakaula, 2023). These values can support environment-based education rooted in Papuan culture and help prevent land conflicts and resource exploitation.

The story of *Asal Mula Nama Kwiawagi dan Sungai Numba* not only explains the origin of a river but also teaches how humans manage their relationship with nature. These ecological messages are important for environmental education in Papua, as Souther et al.'s (2023) statement, that local culture-based learning is more effective in building environmental awareness.

c) *Kisah Pulau Venue*

Kisah Pulau Venue presents the sea and the island as wilderness, representing sacred, open nature. The island is depicted as part of the universe that maintains life balance. The story mentions that Venue Island stands tall in the middle of Cenderawasih Bay, surrounded by blue waters, highlighting the island as a center of community identity. This aligns with Damayanti et al. (2023), who note that Indonesian indigenous communities use traditional ecological knowledge to protect aquatic ecosystems through local rules and non-exploitative practices.

In the story, the animal's element is also clear. The author describes the turtle as a friend of the lonely Venue Island. Its implying the role of marine fauna in supporting the survival of coastal islands.

"It's okay, my friend. I'm happy to help you. Shouldn't we help each other?" said the Turtle" (p. 93).

The presence of turtles in the story can be linked to local customs that prevent the over-exploitation of animals around Venue Island. Rawanda et al. (2020) conducted a similar research. Their showing that on Pulau Pisang, certain animals are protected by customary rules to maintain ecosystem balance. These findings support the idea that animal protection can be effectively guided by local beliefs.

The earth element in this story appears as an invitation to conserve nature. This awareness reflects the community's view of the Earth as an ecological whole that must be preserved. Suryani & Yarkovska (2023) note that most environmental damage results from excessive exploitation. Therefore, literature plays an important role in educating readers, which aligns closely with the function of the earth in ecological storytelling.

“Let us together protect, care for, and preserve this beloved nature with full responsibility” (p. 97).

The pollution element appears through a real case in the late 1970s, when turtles were massacred on Venue Island, causing severe coastal erosion. This case highlights the link between marine ecosystem damage and the physical degradation of the island. [Mutaqin et al.'s research \(2025\)](#) support this. Their research finding that marine pollution in Purworejo accelerated coastal ecosystem damage and disrupted economic productivity.

Thus, the earth and pollution in the *Kisah Pulau Venue* are not just moral reflections but a form of satire on environmental destruction caused by exploitation. Coastal erosion and declining turtle populations reflect the imbalance between human needs and nature. In environmental education, this story has great potential to instil marine conservation values for the sustainability of coastal resources.

“At the end of the 1970s, turtles were massacred ... as a result, Pulau Venue experienced severe erosion” (p. 97).

The dwelling element shows the community's belief in mutual care between humans and nature. Community involvement with the government in monitoring Venue Island also supports the dwelling element, demonstrating a reciprocal relationship between humans and ecosystems. The research of [Touwe \(2020\)](#) reinforces this, his research showing that maritime communities in Maluku preserve the sea through local wisdom and customs.

Additionally, the story reflects ecological and agrarian justice. The sea and island are not just economic spaces but also part of indigenous collective rights governed by belief systems. As explained by [Nugroho et al. \(2018\)](#), that indigenous rights are collective, inherited, and not individually owned, serving as a sustainable method for managing marine resources. These values align with agrarian education principles that foster environmental awareness ([Kamakaula, 2023](#)).

d) *Lelaki Penuh Luka*

The story of *Lelaki Penuh Luka* is set in village, forest, and swamp landscapes that form the living space of the community. The peaceful rural setting reflects the pastoral element, while the journey through forests and thickets, which worsens Cinomana's injuries, represents wilderness. Nature in this story embodies two qualities, namely beauty and harshness. The following excerpts illustrate this.

"The cool morning wind shook the leaves of the trees as if moving in rhythm with the sounds of nature. A peaceful morning" (p. 259).

The passage shows the tranquillity that nature radiates. However, on the other hand, nature also inflicts harm, symbolizing the harshness of life. This is reflected in Cinomana, who, though already wounded, is further injured by the natural environment.

"The journey through the thickets, which worsened the wounds on Cinomana's feet" (p. 264).

Next, the dwelling element is presented through the community's dependence on rivers and swamps. People generally use nature for hunting, gathering food, and daily activities. In *Lelaki Penuh Luka*, rivers are not just routes for travel but also an essential part of life.

"Cinumhai was paddling through the swamp ... then landed and moored his boat at the riverbank" (p. 263).

Cinumhai, a villain who torments Cinomana, also relies on the swamp as a transportation route. This illustrates human dependence on nature. Research by [Sulistiowati et al. \(2025\)](#) show that riparian vegetation along the Gajahwong River in Yogyakarta is considered an important source of life. Similarly, [\(Kamakaula, 2023\)](#) notes that indigenous communities in southern Papua view swamps as living land, that fulfils human needs and serves as a spiritual space. These findings strengthen the idea that natural environments support human livelihoods.

The animal's element in *Lelaki Penuh Luka* is shown through the presence of wild boars and other forest animals. These animals are not only considered as food sources but also as integral parts of the ecosystem. The following excerpt illustrates the routine activities of animals in the forest.

"... Cabruhonji's sharp ears heard the sound of wild boars rooting in the soil for food" (p. 261).

Through the quote above, the author shows that animals have their own life, and excessive exploitation is unwise. The findings of [Yektiningtyas & Dewi \(2023\)](#) emphasize that in Papuan folklore, wild animals are treated as part of the community's ecological moral system, not merely as economic resources.

Furthermore, [Renaldi et al., \(2024\)](#) find that local myths and beliefs about animals help regulate the use of river resources in Bengkulu. These findings support the interconnectedness of humans, animals, and ecosystems as a mutually sustaining whole.

Relevance of Ecological Elements to Environmental Education Policy Development

Papuan folklore has great potential to serve as a catalyst for environmental education because it contains systems of ecological knowledge. Research by [Rediani et al. \(2023\)](#) shows that integrating local wisdom into learning can enhance students' ecological attitudes. This occurs because students do not merely absorb knowledge but also develop reflective awareness. Therefore, environmental education based on folklore can strengthen the credibility of educational practices in Papua, as it is rooted in local cultural elements. The following is a detailed presentation on the formulation of environmental education policies based on the ecological elements found in Papuan folklore.

The ecological elements found in the analysed Papuan folklore consist of dwelling, animals, wilderness, the earth, pastoral, apocalypse, and pollution. These findings illustrate the strong ecological traditions of Papuan communities. In this context, folklore functions as a medium for transmitting ecological values across generations. Examples include prohibitions against destroying forests, calls to protect rivers, and guidelines for maintaining a balanced relationship with nature. These values can serve as a foundation for developing environmental education policies rooted in local wisdom. With this strategy, environmental education is not only oriented toward theoretical knowledge but also guided by cultural content that is close to the daily lives of Papuan students.

For teachers, environmental education policies can be implemented by using teaching materials that contain ecological content in classroom learning. To facilitate this implementation, the Indonesian Language subject is particularly suitable because it includes oral literature learning material. For example, teachers can use the story of *Asal Mula Nama Kwiawagi dan Sungai Numba*, guiding students to identify intrinsic elements while also understanding the practice of shifting cultivation and contextualizing it with current situations. Teachers can also assign students to produce expository texts about environmental damage caused by excessive exploitation, which can then be compared with the ecological elements in *Kisah Pulau Venue*. This strategy ensures that Indonesian Language learning not only develops literacy skills but also stimulates students' ecological awareness.

At the school level, environmental education policies must be implemented through concrete and continuous programs. One example is interdisciplinary, environment-based projects. These projects can be led by teachers whose subjects can be linked to environmental themes, such as Geography/Social Studies, Science,

Indonesian Language, Religion, and others. Each teacher is responsible for refining the project output according to their disciplinary expertise. For instance, if the project theme is water quality at school, the Indonesian Language component could involve staging a drama rich in ecological content, such as *Asal Mula Munculnya Cesar Pak, Penghuni Muara Sungai Ayip*. In addition, Indonesian Language teachers are responsible for guiding students in producing reports on the interdisciplinary project.

In line with the above, [Nurlila & Fua \(2022\)](#) state that integrating environmental education with local culture in schools is more effective in shaping students' ecological attitudes. Therefore, schools need to create an Indonesian Language learning ecosystem that not only focuses on language skills but also strengthens ecological awareness. To maximize environmental conservation goals, schools must also cultivate positive habits. This aligns with [Hasnadi \(2019\)](#), who argues that character formation is optimized through the habituation of behaviours in schools.

For the department of education, official procedures and policies on environmental education should be issued. Beyond that, both moral and material support must also be provided. The department of education in Papua can form a special team to develop teaching modules that support the ecological content of Papuan folktales. According to [Kasse et al. \(2024\)](#), contextualized teaching modules are crucial because they help students understand the relationship between culture, land, and their own environment. Furthermore, teachers should receive training to support high-quality Indonesian Language subject. Finally, the department of education must facilitate collaboration between schools and indigenous communities. These efforts are essential so that ecological values are not merely understood as theory but also become an integral part of education.

The community collaboration model has been studied by [Sudarsono et al. \(2024\)](#), showing that active participation of communities in conservation programs through the values of environmental preservation increases the likelihood of program success. Moreover, Papuan folktales are still rarely taught in schools ([Yektingtyas, 2019](#); [Kasse et al. 2024](#)). This underscores the urgent need for real collaboration between the education sector and relevant communities.

[Souther et al., \(2023\)](#) stated that synergy among schools, indigenous communities, and research institutions can successfully integrate traditional ecological knowledge in the US. This approach can be adapted in Papua by involving teachers, schools, and the local department of education in designing and implementing environmental education policies. In practice, education cannot succeed without good collaboration and coordination among stakeholders.

To achieve effective environmental education, policies must be structured at multiple levels. Teachers can integrate ecological values into learning, schools can develop concrete programs, and the department of education can issue clear

regulations and provide support. Through this approach, environmental education becomes more focused and well-organized.

Based on this discussion, it can be concluded that this research integrates three previously separate areas of research: ecocriticism, traditional ecological knowledge, and environmental education. Unlike ecocritical research that typically focus only on ecological content analysis, or traditional ecological knowledge research that emphasizes community practices, this study links the analysis of ecological Papuan folktales and transforms it into an applied pedagogical framework for education.

Relationship between Ecological Elements, Education Policy, and Agrarian Education

The ecological elements found in *Kumpulan Cerita Rakyat Papua* not only illustrate the connection between humans and nature but also reflect how indigenous communities perceive the environment as part of their agrarian system. The dwelling and the earth elements in the stories show the emotional and spiritual bonds communities maintain with their living spaces. In Papua, these spaces are not merely economic zones but customary lands inherited across generations. Consistently, [Kamakaula \(2023\)](#) notes that the agrarian system in Kaimana is rooted in ecological awareness, where land cannot be privately owned. This supports the view that ecological values in Papuan folktales embody agrarian justice, emphasizing that natural resources should not be exploited excessively.

Local-based environmental education goes beyond conservation instruction, it also fosters awareness of customary land rights and ecological responsibility. [Nurlila & Fua \(2022\)](#) argue that cultivating ecological attitudes in schools is more effective when local culture and environmental values are integrated, as this teaches reciprocal relationships between humans and nature within their context. In Papua, folktales such as *Asal Mula Nama Kwiawagi dan Sungai Numba* and *Kisah Pulau Venue* can serve as learning media for fundamental agrarian principles, including the social function of land, sustainable resource use, and ecological responsibility. [Sihombing et al., \(2025\)](#) also confirm that incorporating local wisdom in education strengthens ecological concern and sustainable natural resource management.

Furthermore, the link between ecology and agrarian values should be reinforced through synergistic education policies. [Souther et al., \(2023\)](#) emphasize the importance of collaboration among educational institutions, indigenous communities, and policymakers to integrate traditional ecological knowledge. Such collaboration can guide Papua's department of education in developing locally contextualized curricula based on agrarian principles. Similarly, [Nugroho et al., \(2018\)](#) show that Biak indigenous community participation in land policy produces sustainable and equitable resource governance. Therefore, integrating ecology and agrarian values in

education can act as a driver for environmental conservation aligned with social justice.

Overall, this discussion highlights the novelty of the research in developing an environmental education model based on Papuan folktales. It not only explains ecological values but also formulates them into practical educational recommendations for Papua. This applied approach has not appeared in previous studies, offering both conceptual and practical contributions that expand the current state of the art.

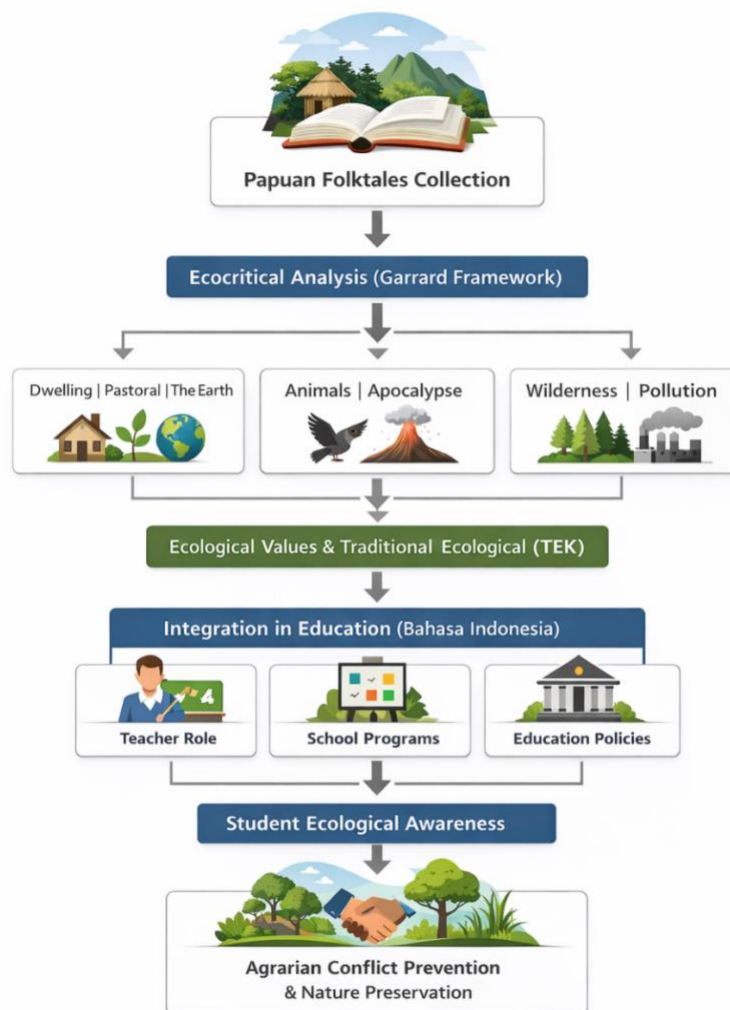


Figure 1. Conceptual Framework

Source: Created with the assistance of ChatGPT (OpenAI), adapted by the researcher.

Figure 1 shows a systematic transformation of Papuan folktales into an applied environmental education framework grounded in ecocritical analysis. Drawing on Garrard's ecocriticism, the model identifies key ecological elements, namely: dwelling, animals, wilderness, pastoral, apocalypse, pollution, and the earth, as embedded representations of human–nature relationships within the narratives. These elements function not merely as literary motifs but as carriers of traditional

ecological knowledge, reflecting indigenous perspectives on sustainability, moral responsibility, and ecological balance. By structuring these elements into a coherent analytical layer, the model positions folklore as an epistemological bridge connecting cultural narratives to ecological literacy, thereby expanding the scope of literary studies into the domain of environmental pedagogy.

Furthermore, the model demonstrates how these ecological values are operationalized within formal education through multi-level integration involving teachers, school programs, and education policy. This pedagogical transformation facilitates the development of students' ecological awareness, a critical outcome of the model. Importantly, the model extends beyond cognitive learning by linking ecological awareness to broader socio-environmental impacts, particularly the prevention of agrarian conflicts and the promotion of sustainable resource management. In this sense, the model offers a novel interdisciplinary framework that integrates ecocriticism, local wisdom, and policy-oriented education, advancing theory and offering practical implications for addressing environmental degradation and land-related conflicts in culturally diverse contexts.

CONCLUSION

This research identifies ecological elements in *Kumpulan Cerita Rakyat Papua*, namely dwelling, animals, wilderness, apocalypse, pollution, pastoral, and the earth. These elements reflect the close relationship between Papuan communities and nature, while also conveying moral values for environmental preservation. Folktales serve not only as cultural heritage but also as ecological records containing the agrarian wisdom of indigenous communities. Therefore, folktales are a strategic medium for fostering ecological awareness among students and preventing agrarian conflicts over customary lands.

In Indonesian Language learning, Papuan folktales can be integrated to enhance literacy while raising environmental awareness, linking stories to real issues such as deforestation, water quality, and pollution. Through language activities, students understand nature as part of a larger life system. Teachers, schools, and department of education need to collaborate through ecological teaching materials, programs, and supportive policies. In this way, education based on local wisdom not only develops academic skills but also cultivates students' ecological responsibility in a sustainable manner.

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