

# ECOTHEOLOGY OF THE KAJANG PEOPLE: THE ENCOUNTER BETWEEN ECOLOGY AND THEOLOGY IN THE INDIGENOUS KAJANG COMMUNITY OF SOUTH SULAWESI

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## ABSTRACT

*The global ecological crisis demands an interdisciplinary approach that goes beyond technical solutions to include spiritual dimensions. This study explores Pasang ri Kajang, the ancestral teachings of the Ammatoa Kajang Indigenous People in South Sulawesi, as a source of ecotheological values integrating ecological awareness with religious belief. Employing a qualitative approach through participatory observation, in-depth interviews, and document analysis, the research was conducted within the Kajang customary territory, focusing on the Ammatoa (customary leader), their teachings, and daily practices. The findings reveal that Pasang ri Kajang functions not only as a customary normative system but also as a contextual theological framework that defines human–nature relations in both ecological and spiritual terms. The principles of simplicity (kamase-masea), prohibitions against environmental exploitation, and rituals of reverence toward sacred forests embody the local praxis of ecotheology. Furthermore, the Ammatoa is identified as an “ecological imam,” a spiritual and ecological leader who interprets Pasang as an “ecological revelation” that safeguards harmony among humans, nature, and the Creator. This study asserts that the local wisdom of Pasang contributes significantly to global ecotheological discourse by offering an alternative narrative to anthropocentric models of development. It demonstrates that faith, culture, and ecology can engage in meaningful dialogue to construct a new, context-sensitive, and spiritually just paradigm of environmental preservation.*

**Keywords:** *Ecological Spirituality, Ecotheology, Indigenous Community, Local Wisdom, Pasang ri Kajang*

## INTRODUCTION

The global ecological crisis has reached an alarming level. Forest destruction, biodiversity loss, environmental pollution, and extreme climate change are concrete signs of this worsening condition. These phenomena underscore the urgency for collective and sustained action from all segments of society to mitigate and navigate the ongoing ecological threats. Environmental issues can no longer be viewed merely as technical or economic problems; they also

encompass deep ethical and spiritual dimensions.

Consequently, environmental issues should not be detached from the diversity of social segments. Every group within society, including traditional leaders, religious figures, and local communities, must be actively involved in fostering ecological awareness and collective action. The global ecosystem has already exceeded its safe planetary boundaries, as warned by Rockström et al. (2009). This situation compels humanity to confront a fundamental philosophical question: how

should humans position themselves in relation to nature?

In addressing this question, ecotheology has emerged as an increasingly relevant interdisciplinary approach that bridges ecology and theology. It views nature as a sacred creation and places humans as stewards rather than absolute rulers of the Earth. According to Conradie (2005), ecotheology calls for a transformation of religious worldviews toward nature to realize ecological justice. In the Indonesian context, this approach becomes particularly significant when connected to the worldviews and practices of indigenous communities, which are deeply imbued with spiritual and cultural values. One of which is the Kajang Indigenous People.

Previous studies on the Kajang community in South Sulawesi, such as those by Saharuddin (2012), Usman (2021), and Rismawati (2019), have examined their way of life from anthropological, sociological, and ecological perspectives. These studies reveal that the Kajang community embodies strong ecological values emphasizing harmony between humans and nature. The values of *kamase-masea* (simple living), prohibitions against excessive exploitation, and reverence for sacred forests are often described as expressions of *local genius*, beyond mere *local wisdom*, that sustain their environmental preservation system.

Most of these studies remain focused on the sociocultural or environmental-ethical dimensions of *Pasang ri Kajang*, without interpreting it as a theological system. In other words, *Pasang* is often understood as a set of customary norms or moral codes, rather than as an ecological theology rooted in spiritual belief and cosmological understanding.

However, when examined hermeneutically and theologically, *Pasang ri Kajang* reveals a rich cosmological perspective on the relationship among

humans, nature, and the Creator (*Turie' A'ra'na*). It represents not merely an ecological ethic but also a “revelation” that structures the community’s understanding of the sacredness of creation. *Pasang* not only governs social conduct but also evokes a spiritual consciousness that protecting forests and the earth is an act of worship and religious devotion.

Within Kajang cosmology, there exists a profound awareness that forests, rivers, soil, and all elements of nature are integral parts of a spiritual system inseparable from human existence. This worldview resonates with the ecosophical principles of *deep ecology* proposed by Arne Naess (1973), yet it is rooted in local lived experiences and indigenous spirituality. For instance, the prohibitions against cutting down trees indiscriminately or cultivating sacred forests without the *Ammatoa*’s permission are not merely conservation acts. They are ethical and religious imperatives.

Ecotheology in the Kajang context can thus be understood as a form of contextual theology grounded in local wisdom, wherein ecological experience is harmonized with the belief in cosmic balance. Human–nature relations are not dominative but dialogical and mutually sustaining. These values deserve closer examination as alternative narratives to anthropocentric and exploitative development paradigms.

Accordingly, this study focuses on interpreting *Pasang ri Kajang* not merely as customary law, cultural value, or environmental ethic, but as a theology of creation and ecological spirituality. The novelty of this research lies in its attempt to bridge theology and anthropology by reading *Pasang* as a “living theology”, a dynamic theological text embodied in everyday practice.

Through this lens, *Pasang ri Kajang* serves as a medium for understanding how an indigenous community interprets faith through ecological relations. In this sense, the study does not simply describe the

community's ecological practices but interprets their spirituality as a form of contextual ecotheology, a genuine encounter between faith and ecology within a local cultural context.

This research offers two main contributions. First, it conceptualizes *Pasang ri Kajang* as an indigenous model of ecological theology originating from local praxis. Second, it positions the *Ammatoa* as an ecological imam, a spiritual leader who translates *Pasang* values into concrete ecological actions, thereby redefining theology as a living ecological praxis rather than a static dogmatic system.

Through this reading, the study expands the horizon of ecotheology, which has long been dominated by Western discourse. It reveals that within the silent forests of Kajang lies a subtle yet profound spirituality, a living faith that speaks of God, humanity, and the Earth through a *spiritual ecology* that is unwritten yet deeply lived. Thus, this article not only enriches scholarly discourse on ecotheology but also invites reflection on the formation of a new paradigm for the interrelationship between tradition, nature, and faith.

## Literature Review

Ecotheology emerged as a theological response to the global environmental crisis caused by anthropocentric and capitalist paradigms. The view that humans are rulers over nature (White, 1967) has led to severe ecological degradation, prompting theological reflections that regard nature as sacred and equal to humanity. Northcott (1996) defines ecotheology as an ethical and spiritual call to renew human–nature relations as fellow creations of God.

Ecological awareness later developed into paradigms challenging anthropocentrism, one of which is ecofeminism. Rosemary Radford Ruether (1998) links the oppression of women and the exploitation of nature, arguing that

patriarchal and capitalist structures subjugate both. Ecological liberation thus requires reconstructing spirituality on equality and compassion, making ecological ethics inseparable from social and religious power structures.

Another major strand, ecological liberation theology, views the ecological crisis as part of structural injustice. Leonardo Boff (1997) in *Cry of the Earth, Cry of the Poor* parallels the suffering of the Earth with that of the oppressed, portraying the planet as the “body of God” that must be cared for rather than exploited. For Boff, ecological salvation is integral to liberating humanity from destructive economic systems.

Similarly, contextual theology emphasizes that faith must respond to the social, cultural, and ecological realities of life (Fabella & Torres, 1983). Authentic spirituality, Fabella asserts, must be rooted in the land where believers dwell. Many Asian spiritual communities regard nature as *locus theologicus*, a space where divine revelation is experienced, showing that faith is inseparable from the integrity of creation.

From these currents arises creation theology, the foundation of modern ecotheology. It asserts that all creation possesses intrinsic value because it originates in and exists within God (Moltmann, 2000; McFague, 1993). Rejecting anthropocentrism, this view embraces a panentheistic paradigm in which God is present in all creation without diminishing divine transcendence. Nature thus becomes a spiritual companion and moral responsibility to preserve (Santmire, 2000).

Indigenous ecological knowledge, as shown by Berkes (2008) and Posey (1999), integrates spiritual and cosmological values within environmental practices. Many indigenous communities perceive nature as part of a spiritual network, making them key actors in contextual ecotheology. In Indonesia, traditions such as *sasi* in Maluku, *awig-awig* in Bali, and

customary prohibitions in Papua embody ecological ethics rooted in spirituality (Purwanto, 2017). These mechanisms illustrate Indonesia's potential to develop ecotheology grounded in local wisdom.

*Pasang ri Kajang*, the value system of the Kajang Indigenous Community, embodies moral, social, and ecological teachings such as *kamase-masea* and the prohibition of forest exploitation. Saharuddin (2012) and Usman (2021) describe *Pasang* as a "living constitution" sustaining harmony between humans, nature, and the divine. The *Ammatoa*, as leader and guardian, upholds this ecological order through sacred laws protecting the forest as a holy space. Rismawati (2019) identifies his role as ecological leadership that nurtures human–environment harmony.

For the Kajang people, the forest is a sacred realm inhabited by ancestral spirits, an example of sacramental ecology where nature reveals divine presence. Rituals prohibiting deforestation and regulating land and water reflect their ecological spirituality. Yet modern development often undermines this wisdom; land appropriation and mining threaten both ecology and culture (Ekawati, 2020).

From an ecological anthropology lens, Bird-David (1999, in Maarif, 2016; Kumoro, 2020; Syamsurijal, 2024) revises Tylor's notion of animism, viewing indigenous nature relations as dialogical "subject-to-subject" interactions. This framework clarifies how the Kajang people relate spiritually to forests and land as living entities. Hence, ecotheology is not merely doctrine, but a lived spiritual experience embedded in daily practice.

Recent local scholarship deepens this understanding. Hafid (2013) explores Kajang cosmology centered on *Turie' A'ra'na*, the Creator who maintains natural harmony. Amin (2019) relates *Pasang ri Kajang* to the Sufi ideal of *zuhud* (ascetic simplicity), while Wekke and Riswandi (2023) highlight forest reverence as ecological consciousness. Amsal and Putri

(2022) extend this through Kajang ecofeminism, depicting women as life guardians. Fathurrahman (2023) introduces the Patuntung ecotheology evident in Kajang rituals and language.

A phenomenological study by Samiang Katu (2018) interprets *Pasang* as "an oral command that must be obeyed," where violations disturb cosmic balance, affirming *Pasang* as ecological revelation uniting humans, nature, and the divine.

Collectively, these studies reveal that *Pasang ri Kajang* contains deep theological dimensions yet to be fully explored. It functions as both ethical guidance and ecological spirituality reflecting creation theology, ecological relations, and prophetic awareness of nature. This study therefore extends ecotheological discourse by linking the Kajang ecological worldview with the spiritual leadership of the *Ammatoa* as a concrete form of contextual ecological theology.

## Conceptual Framework

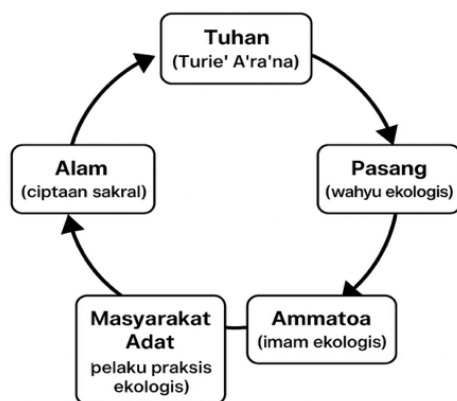
This study positions *Pasang ri Kajang* at the core of a contextual ecotheology that represents the intersection of ecology, theology, and the indigenous wisdom of the Kajang community in South Sulawesi. Within this framework, nature, humanity, and the divine are understood as an inseparable cosmic unity, bound by reciprocal relationships and sacred interdependence.

First, the ecological dimension arises from the awareness that nature is a living subject rather than an object of exploitation. The principles of *kamase-masea*, the prohibition against forest destruction, and the reverence for ancestral land exemplify a dialogical relationship between humans and nature that is grounded in ecological ethics. This perspective aligns with Naess's concept of *deep ecology* (1973), which rejects anthropocentric domination over the natural world.

Second, the theological dimension positions *Pasang ri Kajang* as an ecological revelation and a form of spiritual guidance that calls humanity to preserve the sanctity of creation. The belief in *Turie' A'ra'na* as the Creator affirms a panentheistic understanding that God is present within all creation (Moltmann, 2000). Within this theological ecology, the *Ammatoa* serves as an ecological priest who interprets the spiritual values of *Pasang* and safeguards the balance between the spiritual and natural realms.

Third, the socio-cultural dimension illustrates that customary law (*adat*) functions as an *embodied theology*, or a theology that is lived through social practice. Through ritual observances, customary prohibitions, and simple lifestyles, the Kajang people actualize their faith in everyday ecological actions. These three dimensions: ecological, theological, and socio-cultural, interact within a relational system that connects God, nature, and humanity, forming the model of Kajang ecotheology as illustrated in Figure 1.

**Figure 1.** The Kajang Ecotheological Framework



Source: Data Analysis, 2025

“God (*Turie' A'ra'na*) → *Pasang* (ecological revelation) → *Ammatoa* (ecological priest) → Indigenous Community (agents of ecological practice) → Nature (sacred creation) → returning to God.”

In this sense, *Pasang ri Kajang* serves as an epistemological bridge between faith and ecology. It presents a theological paradigm that is not anthropocentric but rather ecocentric and relational. This framework affirms that for the Kajang people, environmental preservation is not merely an ecological act but also a form of spiritual devotion, representing the concrete convergence of faith, culture, and ecology.

## RESEARCH METHOD

This study employed a qualitative descriptive-narrative approach to explore the meaning of ecological spirituality within the *Ammatoa* Kajang Indigenous Community and its dialogue with ecotheological principles in world religions. The approach emphasized interpretation and contextual understanding rather than numerical measurement.

The research was conducted in the *Ammatoa* Kajang customary area in Bulukumba Regency, South Sulawesi. This site was chosen for its distinctive preservation of belief systems, ecological ethics, and cultural practices rooted in *Pasang ri Kajang*. Fieldwork included direct observation of daily life, focusing on ecological and spiritual expressions that reflect local wisdom.

Data were collected through participant observation, in-depth interviews, and document analysis. Observation captured the community's social and religious interactions with nature, while interviews with the *Ammatoa*, community members, and scholars used a semi-structured format to allow depth and flexibility. Document analysis involved reviewing *Pasang ri Kajang* manuscripts, previous studies, and relevant theological sources.

Thematic analysis was applied through transcription, coding, and categorization of emerging themes related to human–nature relations, spirituality in

conservation, and the sacredness of nature. Hermeneutic interpretation was used to uncover symbolic meanings and local narratives within Kajang culture, which were then examined in relation to ecotheological concepts such as stewardship, creation spirituality, and the cosmic narrative in sacred texts.

Data credibility was strengthened through triangulation of methods, data sources, and theories. Findings from observations, interviews, and documents were compared for consistency, while theoretical triangulation connected field data with insights from ecological theology and cultural anthropology.

Overall, this methodological framework serves to build an interpretive bridge between indigenous ecological spirituality and formal theological discourse, enriching the development of contextual and inclusive ecotheology.

## DISCUSSION

### *Patuntung* as “Ecological Revelation”

The study finds that *Patuntung* for the Kajang people is more than a belief system. It is a comprehensive spiritual worldview that unites humans, *Turie’ A’ra’na*, ancestors, and the cosmos in a living, relational whole. As a traditional spirituality, *Patuntung* serves both as cosmology and ecological ethic, directing daily conduct through *Pasang*, the oral “living scripture.” In practice, this ethic is expressed in obedience to *Pasang*, reverence for nature, and the austere life of the *Kajang Dalam* or *ilalang embayya* community. Thus, the concept of ecological revelation becomes relevant.

Etymologically, *Patuntung* comes from the word *tuntung*, meaning “to seek” or “to follow guidance.” It represents a theological teaching that calls for following divine direction and ancestral wisdom in life. In practice, this teaching is expressed through obedience to *Pasang*, reverence for nature, and a simple lifestyle characteristic of the *Kajang Dalam* (inner

Kajang) community. Faith, custom, and nature are not separate entities but an integrated way of life for the Kajang people.

Field observations show that *Patuntung* values are deeply embedded in all aspects of life, from rituals and agriculture to forest management and social organization. As the *Ammatoa* and other elders explained, “*Patuntung* is the guide of life. If we stray from it, we lose direction, and nature will be angry.” This statement reflects that disharmony with nature is viewed not merely as an ecological error but as a violation of faith itself.

*Patuntung* asserts a cosmological theism that is inclusive and immanent. God is not distant but present in trees, rivers, wind, and soil, which function as spiritual media. This outlook resonates with ecological panentheism introduced by McFague (1993) and frames nature as sacramental revelation rather than inert resource. Moral rules follow from this worldview: prohibitions against cutting sacred trees, polluting waterways, or deploying heavy machinery in customary zones are not mere customs but spiritual commitments. Violations trigger customary sanctions, believed to restore cosmic balance and deter further harm.

Beyond spiritual regulation, *Patuntung* has become a moral and political instrument. Community invokes its values to resist external interventions, oppose exploitative permits, and defend customary territory. In this way *Patuntung* fosters ecological sovereignty grounded in local spirituality (Abdullah, 2010) and provides a framework for collective refusal of projects that threaten ecological and cultural integrity.

The boundary between sacred and profane is porous under *Patuntung*. Houses, fields, and forests are spiritual spaces, and everyday acts carry moral consequence. Ascetic simplicity is normative; as one Kajang woman noted, “We take only what we need; if we take

more, God and nature will be angry.” This ethic produces strong communal restraint on consumption, creating durable conservation behavior that flows from religious conviction rather than legal coercion.

*Patuntung* also aligns with ecological liberation theology. It emerges from lived experience, articulates demands for ecological justice, and challenges structures that commodify land and people. Local spirituality thus becomes a resource for grassroots environmental advocacy rather than an obstacle to progress.

Nonetheless, *Patuntung* faces threats from globalization, capitalist encroachment, and cultural marginalization. Younger generations exposed to external culture risk detachment from ancestral practice. Sustaining *Patuntung* depends on the continued moral leadership of the *Ammatoa* and elders, who transmit *Pasang* orally and through everyday ritual.

In sum, *Patuntung* is a living, contextual theology that integrates faith, custom, and ecology. It offers an indigenous model of sustainability in which spiritual practice, ethical restraint, and political resistance combine to protect both culture and environment. As such, *Patuntung* stands as a meaningful contribution to local ecotheology and a practical template for spiritually grounded conservation in Indonesia.

### ***Ammatoa* as an “Ecological Imam”**

In the cosmology of the Kajang Indigenous people, the *Ammatoa* holds a role that is deeply spiritual and ecological rather than merely administrative. He is not only a traditional leader who maintains social order but an ecological imam, a sacred guardian of harmony among humanity, nature, and the divine. The *Ammatoa* interprets *Pasang ri Kajang* as an ecological revelation that carries faith-based and moral responsibility toward the Earth.

As an ecological imam, the *Ammatoa* walks alongside his people in a reciprocal relationship with nature. He mediates between *Turie’ A’ra’na*, the ancestors, and the community. Every decision he makes, whether about rituals, agriculture, or resource use, derives from *Pasang*, regarded as the community’s “sacred scripture of life.” *Pasang* is transmitted orally and lived daily as a moral compass.

The *Ammatoa* interprets *Pasang* holistically. Teachings such as “*Anganre na rie care-care rie, juku rie, koko na galung rie, balla situju-tuju*” (“It is enough when there is food, fish, gardens, and rice fields, and a simple home”) are ecological laws that promote balance and *kamase-masea*, a life of simplicity and sufficiency. These values restrain greed and consumerism. As the *Ammatoa* said, “When humans desire more than what is sufficient, they violate the boundary set by *Turie’ A’ra’na*. Nature will not bless them, and disaster will follow.”

Thus, *Pasang ri Kajang* functions as an ecological theology that positions humans as stewards rather than conquerors of nature. The *Ammatoa* teaches that environmental destruction is disobedience to God. This perspective echoes Arne Naess’s deep ecology, which views humans as part of nature rather than separate from it. Within the *Patuntung* faith, humans, land, and forest form one spiritual body (*pakkasiri’na lino*), with the *Ammatoa* as its guardian spirit.

The *Ammatoa*’s ecological role is most visible in the management of *borong karama* (the sacred forest). Cutting trees or hunting within it is forbidden without his consent, which is rarely granted because the forest is considered the spiritual body of *Turie’ A’ra’na*. Violations incur traditional sanctions and are believed to bring spiritual punishment. One *Pasang* states, “If the forest is cut down carelessly, the rain will cease and the springs will dry up.” For the *Ammatoa*, protecting the

forest is an act of faith, while destroying it is an ecological sin.

*Ammatoa*'s leadership rests not on political power but on moral integrity. He governs by example, living an ascetic life in simple wooden housing, wearing black cloth, walking barefoot, and rejecting electricity and vehicles. His lifestyle embodies both spiritual discipline and ecological ethics. Through this, he becomes a living text of *kamase-masea*, a theology of simplicity that implicitly critiques the greed of modern civilization.

This form of ecospiritual leadership parallels ideas from Jürgen Moltmann and Leonardo Boff. Moltmann (1985) describes humans as "priests of creation," called to celebrate life's sacredness rather than dominate it. Boff (1997) identifies ecological crisis as a crisis of spirituality, urging humanity to see the earth as "the body of God." The *Ammatoa* exemplifies this calling as a local ecological priest whose leadership is rooted in service to life, not control over it.

Although he never identifies himself as a theologian, the *Ammatoa*'s life reflects a lived theology. He rejects destructive technology without dismissing knowledge. Every decision carries spiritual meaning. When asked why they avoid cutting valuable trees, a villager said, "Because *Ammatoa* said, if we cut down a tree that is not our right, we cut our own life." This belief embodies a sacramental ecology where all elements of nature signify divine presence.

The *Ammatoa* also leads through ecological governance. He teaches people to distinguish three forest zones: *borong karama* (sacred forest), *borong battasayya* (buffer forest), and *borong luarayya* (outer forest for limited use). This zoning reflects sophisticated ecological awareness and aligns with Moltmann's principle of "the balance of creation." The *karama* forest remains untouched, *battasayya* may be used with permission, and *luarayya* serves daily needs.

The *Ammatoa* further acts as a bridge between tradition and the state. The *Ammatoa* led his community's struggle for legal recognition of their customary forest, seeing legality as a step toward spiritual acknowledgment of the forest as a living being. When recognition came in 2016, he described it as "the blessing of nature finally translated by humans." This represents a form of practical theology where faith meets ecological policy.

Globally, *Ammatoa*'s leadership demonstrates that local spirituality can express universal ecological values. For him, faith and ecology are inseparable. This worldview resonates with Sallie McFague's (1993) ecological panentheism, which views God as immanent within creation. Without formal theology, the *Ammatoa* embodies this idea through lived practice.

As an ecological priest, he teaches that obedience to God requires respect for nature: to pray is to plant, to give thanks is to protect water, and to have faith is to live simply. His spirituality is quiet yet deeply rooted, conveyed not through sermons but through example.

Theologically, the *Ammatoa* represents a paradigm of leadership that unites faith and ecology. He leads without ambition, advises without coercion, and commands through integrity rather than authority. In this sense, he fulfills Moltmann's vision of the ecological priest who safeguards the covenant between God and creation.

Findings from this study show that the *Ammatoa*'s leadership cannot be separated from his theological vocation. He is the guardian of *Pasang*, the interpreter of faith through ecological action, and a living symbol of ecospiritual leadership. In a time of ecological crisis and moral disconnection, figures like the *Ammatoa* remind that genuine leadership often speaks through silence, sustained by prayer and lived harmony with the earth.

Thus, the ecological priest is not a metaphor but a lived reality. The *Ammatoa*

bridges heaven and earth, ancestral wisdom and modern challenges. From the heart of the Kajang forest, his life continues as a prayer for the earth, expressed not in words but through daily acts of balance and reverence for creation.

### Preserving the Forest, Nurturing Faith

This study reveals that *Pasang ri Kajang* is a value system that not only governs social relations but also forms the spiritual and ecological foundation of the Kajang Indigenous community's way of life. Values such as *kamase-masea*, *lem pu'* (honesty), and the prohibition of *ammateang borong* (destroying the forest) serve as the core principles that sustain harmony among humans, nature, and ancestral spirits. In the context of ecotheology, *Pasang* represents a concrete reflection of the theology of creation, which places nature as an inseparable part of faith.

These findings align with Moltmann's (1985) view that ecotheology embodies a form of spirituality that situates nature within a theological relationship rather than treating it as a mere object. The Kajang community perceives the forest not simply as an economic resource but as a living being endowed with spirit and sacred status. In this sense, *Pasang* functions as a "local sacred text" that defines an ecological ethic rooted in belief.

Another important finding concerns how the Kajang community perceives the customary forest (*borong karama'ka*) as a sacred space that cannot be exploited arbitrarily. The forest is regarded as an ancestral trust that must be protected and respected. Only *Ammatoa* holds the spiritual authority to determine its boundaries and usage. This practice embodies the ecotheological principle that nature, as God's creation, is sacred, and the human role is to preserve rather than to dominate it.

In their forest management system, the Kajang community divides forest areas into three main zones:

1. *Borong karama*, the most sacred area, must remain completely untouched. Logging, hunting, or extracting forest products are strictly prohibited. The forest is viewed as the "spiritual body" of *Turie' A'ra'na* and as the dwelling place of ancestral spirits. Any violation is believed to bring curses or ecological misfortune.
2. *Borong battasayya*, the buffer zone, may be used in a limited way with *Ammatoa*'s permission. Its use must follow the principle of *kamase-masea* and cannot be for commercial purposes. Resources taken from this zone must meet daily needs and be used with reverence.
3. *Borong luarayya*, the outer zone, can be utilized for household economic activities such as farming, gardening, and collecting firewood. Although more open, its management remains under customary supervision to prevent overexploitation.

This three-zone division illustrates the Kajang people's theological concept of balance among sacredness, responsibility, and sustainability. Symbolically, *borong karama* represents the divine realm, *borong battasayya* reflects the human sphere under *Ammatoa*'s spiritual guidance, and *borong luarayya* embodies daily life that must still adhere to ecological and spiritual values. Hence, the system constitutes a living and institutionalized practice of "local ecotheology."

Prohibitions against indiscriminate tree cutting, the rejection of electricity and motor vehicles, and the restriction of technological access within the *Kajang Dalam* area represent a form of ecological asceticism closely aligned with the principles of the theology of creation. Berry (1999) notes that a genuine ecological culture emerges from spirituality that honors the earth as a shared sacred home. Thus, the Kajang community's way of life can be understood

as a concrete expression of ecological spirituality embedded in culture.

*Ammatoa* is not merely a customary leader but also the holder of spiritual and ecological authority. Within the *Pasang* system, he leads rituals, formulates environmental policies, and safeguards moral and customary values. His authority is not merely administrative but also transcendental. Interviews with *Ammatoa* and community members indicate that every decision regarding natural resource management must undergo spiritual reflection rather than being based solely on technocratic considerations. This exemplifies ecospiritual leadership, where decisions grounded in faith and ecological values guide sustainability.

The findings further show that the Kajang community has implicitly practiced ecotheological principles in their daily lives. Although they do not use the term “ecotheology,” their practices reflect a profound understanding of the interconnection between faith, humanity, and nature. This supports the idea that ecotheology emerges not only from scriptural texts but also from localized spiritual practices, or what may be termed contextual ecotheology. Local wisdom such as *Pasang ri Kajang* thus represents a lived theology embedded within culture and deserves recognition within a broader academic framework.

Despite the enduring strength of the *Pasang* system, the Kajang community now faces external challenges such as plantation expansion, mining projects, and pressures of modernization. Some younger generations have begun questioning customary restrictions, particularly concerning technology and access to formal education. This indicates an ongoing tension between traditional ecotheological values and the forces of modernity.

Nevertheless, amid these pressures, *Pasang* continues to serve as a cultural and spiritual instrument of resistance against environmental degradation and economic

exploitation. This demonstrates that ecotheological practice within indigenous communities is not a static legacy but a dynamic and adaptive system.

The results of this study reinforce previous research showing that Indonesia’s indigenous communities possess rich ecological cosmologies that can serve as a foundation for environmental theology. However, this study offers a new contribution by revealing that *Pasang ri Kajang* functions not only as customary norms but also as a living ecological theology that is continually reinterpreted and practiced in daily life.

Theoretically, this research expands the scope of ecotheology as an interdisciplinary approach bridging theology, anthropology, and ecology. Practically, it provides a valuable reference for policymakers and environmental activists to engage indigenous communities as partners in environmental preservation, not as passive beneficiaries but as active spiritual and ecological agents.

### **From Ancestral Message to Public Policy**

Ecotheology within the *Pasang ri Kajang* tradition represents a profound spiritual expression deeply intertwined with the ecological worldview of the Kajang Indigenous community. *Pasang* is not merely a collection of moral teachings but a comprehensive set of values and life principles that regulate human relationships with others, with nature, and with the Creator. In Kajang cosmology, nature is not a passive entity but part of a spiritual community that must be respected, protected, and sanctified.

The expression “*Anjo boronga toayya, anjo tanah toayya*” (this forest is our mother, this land is our mother) reflects a maternal relationship between humans and nature. This bond is both symbiotic and spiritual: when humans protect the forest and the land, both return the favor by

sustaining life. Such a worldview aligns with ecotheological principles that integrate faith and ecological responsibility.

It is important to clarify, as explained by several traditional elders, that the term *toayya* refers to something venerable or worthy of reverence rather than “mother” in a biological sense. However, within the context of *anjo boronga toayya*, the term carries a maternal connotation, positioning the forest as a nurturing and life-giving entity. This interpretation is based on interviews with Kajang community leaders conducted in July 2025.

In daily practice, the teachings of *Pasang* are embodied in strict customary laws, particularly regarding forest management. The *Kajang Dalam* community adheres to prohibitions against indiscriminate tree cutting, forest burning, and river pollution. The customary forest (*borong karama*) is protected as a sacred inheritance that must not be commercialized. Violations of these rules are subject to severe customary sanctions, not only to uphold social justice but also to maintain cosmic balance.

The ecological ethics shaped by *Pasang* can be understood as a concrete form of “theology of the land,” a belief that the earth is sacred and spiritually meaningful. This concept resonates with Thomas Berry’s (1999) theory of ecotheology, which argues that the modern ecological crisis arises from humanity’s detachment from the spiritual essence of nature. In contrast, the Kajang community demonstrates that spiritual connectedness with nature forms the very foundation of their civilization.

Interestingly, the teachings of *Pasang* have not remained confined within customary boundaries. In recent years, its ecological messages have begun influencing formal policy spaces. This development stems from the long struggle of the Kajang people to gain legal recognition of their customary forests. Through advocacy involving NGOs,

academics, and local leaders, the Bulukumba Regency Government enacted Regional Regulation No. 9 of 2015 on the Recognition and Protection of the Rights of the Kajang Indigenous People.

In 2016, the Ministry of Environment and Forestry officially recognized the *Ammatoa* Kajang Customary Forest as one of the first customary forests acknowledged nationally following the Constitutional Court Decision No. 35/PUU-X/2012. This milestone marked a major shift, as the ancestral messages once preserved through oral tradition began to inspire and shape state policy (Safitri, 2017).

The transformation of customary values into political policy was not an easy process. It required long negotiations and the development of academic frameworks that bridged local epistemology with the national legal system. In this context, *Pasang* is positioned not merely as a cultural heritage but as a legitimate source of public knowledge and ethics. Tania Li (2007) refers to this process as “the politicization of indigeneity,” where indigenous identity and values become instruments of negotiation within modern politics.

The incorporation of *Pasang* into public policy demonstrates that local wisdom can serve as a foundation for equitable and sustainable ecological governance. In this regard, the Kajang community not only safeguards the forest but also contributes to the discourse on sustainable development that respects the plurality of knowledge systems. This stands as a counterpoint to conventional development approaches that are often top-down and exploitative toward the environment.

Furthermore, the recognition of the Kajang Customary Forest signifies that the state has begun to acknowledge spirituality as an integral component of natural resource governance. This aligns with the spirit of ecotheology, which calls for the integration of faith, ethics, and public

policy. In other words, the Kajang community's success lies not only in forest conservation but also in influencing how the state defines its relationship with indigenous communities and the environment.

This achievement has also inspired other indigenous groups across Indonesia. In various environmental forums, *Ammatoa* Kajang is often invited to share best practices in spiritually grounded forest protection. *Pasang ri Kajang* thus serves as tangible evidence that local teachings can coexist with global ecological principles such as climate change mitigation and biodiversity preservation.

However, challenges persist. When spiritual and customary values are accommodated within state frameworks, there is a risk of commodification. The meaning of *Pasang* could be reduced to a mere administrative instrument. Therefore, it is crucial for indigenous communities to safeguard the authenticity of their values while remaining critical of bureaucratic practices that may dilute their spiritual significance.

External threats also remain, including plantation expansion, mining projects, and tourism interests targeting customary territories. Despite legal recognition, the resilience of the Kajang community depends heavily on internal consolidation, customary education, and the transmission of *Pasang* values to younger generations. Strengthening ecological and spiritual literacy is therefore essential for the future.

Theoretically, the journey of *Pasang ri Kajang* from ancestral message to state policy demonstrates the transformative power of local knowledge. It is not merely a cultural legacy but an alternative epistemology offering concrete solutions to the global ecological crisis. In postcolonial theory, this process represents a form of "decolonization of knowledge."

Thus, *Pasang* stands as living evidence that indigenous values are not remnants of the past but assets for the

future. When spirituality, ecological justice, and political will converge within a collective consciousness, they give rise to a model of environmental governance that is rooted, sustainable, and dignified. In a world trapped in ecological crisis and spiritual nihilism, the narrative of *Pasang* offers renewed hope: saving the forest begins with listening to ancestral wisdom.

Ultimately, this study underscores the importance of interdisciplinary approaches to understanding indigenous ecological practices. The integration of theology, anthropology, and public policy paves the way for a transformative model of ecotheology that is relevant to sustainable development. Here lies the distinct significance of *Pasang ri Kajang*: it is not merely a local story but a global message calling for universal ecological awareness.

### **The Kajang People as the World's Best Guardians of Tropical Forests**

The Indigenous Kajang community, particularly those residing within the Kajang Dalam territory, has long been recognized as exemplary forest guardians who practice a system of management deeply rooted in local wisdom and profound spirituality. For them, the forest is not merely a natural resource, but a living entity endowed with spirit and dignity. This study reveals that the Kajang people's relationship with the forest is sacred and spiritual rather than exploitative. The forest is not something to be owned but to be nurtured and passed down through generations.

*Pasang* functions as a sacred text transmitted orally from one generation to the next, containing ecological values, moral teachings, and spiritual guidance that shape harmonious living with nature. Prohibitions against felling trees indiscriminately, hunting outside designated seasons, or dumping waste into rivers are concrete manifestations of *Pasang*'s teachings. Violations are met with customary sanctions, ranging from

material fines to social penalties that deter repetition. Interestingly, compliance with these norms stems not from fear of human punishment but from reverence toward nature's wrath and ancestral curses. Spirituality thus serves as the primary instrument in shaping the Kajang people's ecological consciousness.

Field observations indicate that the Kajang customary forest remains in remarkably pristine condition compared to surrounding non-customary areas, which have suffered degradation due to land clearing, mining, and large-scale plantations. Data from environmental organizations such as AMAN and WALHI report that more than 3,000 hectares of Kajang customary forest remain intact, making it one of the best examples of community-based forest management in Indonesia.

The Kajang people's reputation as the world's foremost guardians of tropical forests has also gained international recognition. In 2015, the Kajang Indigenous Community received the Equator Prize from the UNDP for successfully preserving their forest through effective traditional mechanisms, and most recently, The Washington Post highlighted their achievements. These acknowledgments demonstrate that indigenous and spiritual approaches can rival, and even surpass, state-led conservation models.

This success cannot be separated from the strong and charismatic customary leadership embodied in the figure of the *Ammatoa*. The *Ammatoa* serves not only as a spiritual leader but also as the moral guardian of the community, maintaining the balance between humans, nature, and God. In an interview, the *Ammatoa* stated, "We do not protect the forest because we are told to, but because it is part of our lives. The forest is our home, not a commodity."

The Kajang's life philosophy, known as *kamase-masea*, acts as a strong defense against capitalism and

consumerism. In their daily lives, the Kajang people reject excessive ownership and take from nature only what they need, never for the accumulation of wealth. This lifestyle results in a remarkably low ecological footprint, positioning them among the most environmentally friendly communities in the world.

This study also finds that the Kajang's forest management does not rely on advanced technology or modern scientific frameworks, but rather on an indigenous knowledge system refined through centuries of experience. They determine the best planting times by observing lunar cycles, mark prohibited zones by bird calls, and read climatic changes through shifts in temperature and wind. This knowledge is preserved through oral transmission and practical engagement across generations.

Through observational and participatory methods, this study demonstrates that customary-based conservation models often surpass top-down conservation programs in terms of sustainability and community participation. When communities are entrusted to manage their forests according to their own values, they exhibit stronger ecological commitment than externally imposed conservation initiatives, which frequently fail due to contextual disconnection.

Within an ecotheological framework, the Kajang people embody a unique synthesis of spirituality, local belief, and environmental stewardship. They perceive God's presence in trees, rivers, and soil. Nature, therefore, is not neutral but sacred, and environmental destruction is viewed as a moral transgression. This worldview aligns with ecotheological perspectives developed by scholars such as Sallie McFague and Leonardo Boff, who argue that spirituality must be intertwined with ecological struggle.

Furthermore, Kajang's customary approach resonates with Vandana Shiva's

concept of earth democracy, which advocates for the right to life for all beings, including forests and rivers. In this view, forests are not mere ecosystems but subjects possessing inherent rights not to be destroyed. This provides a robust philosophical foundation for advancing ecological rights within customary legal frameworks.

Nonetheless, significant challenges persist. In recent decades, customary territories have faced mounting pressures from extractive industries, infrastructure expansion, and land politics. Agrarian conflicts have arisen, particularly in areas lacking formal state recognition. Therefore, this study underscores the importance of strengthening the legal status of customary forests as part of environmental policy and the recognition of indigenous peoples' rights.

The proposed solution is a model of coexistence between the state and indigenous institutions. The state need not assume direct control over forest management but should instead act as a facilitator and protector of indigenous rights. This collaborative model could foster synergy between local wisdom and modern science in conservation efforts. The Kajang experience demonstrates that sustainability need not come from external interventions but can emerge from within, from the living wisdom of the people themselves.

The findings reinforce the argument that indigenous communities are not obstacles to development but guardians of the planet's future. The Kajang illustrates an alternative way of life, one that is non-destructive, non-greedy, yet spiritually fulfilling. They serve as a mirror of the past and a compass for the future in addressing the global climate and ecological crises.

In conclusion, positioning Kajang as a global model of forest management grounded in local wisdom is a strategic step, not only for conservation but also for redefining humanity's relationship with nature. The Kajang are not merely forest

keepers. They are custodians of values, spirit, and life itself.

## CLOSING

This study affirms that *Pasang ri Kajang* is not merely a customary normative system but also embodies profound theological values in understanding the relationship between humans, nature, and the Creator. Through the principles of *kamase-masea*, reverence for nature, and spiritual obedience to the teachings of the *Ammatoa*, the Kajang Indigenous community has cultivated a sustainable way of life. In this study, such practice is interpreted as a form of ecotheological praxis grounded in local wisdom.

Amid the global ecological crisis and the erosion of environmental ethics in modern society, the Kajang community's way of life stands as a vital reflection of an alternative development narrative, one that is both ecologically and spiritually just. Ecotheology in the Kajang context demonstrates that faith and local wisdom can serve as powerful foundations for sustaining the planet without contradicting cultural identity.

This research also reveals that contemporary ecotheological concepts, which have been predominantly shaped by Western theological narratives, can be enriched through the lived spiritual practices of Indigenous communities. Therefore, it is crucial for scholars, theologians, and policymakers to foster dialogue between formal theology and local wisdom in order to construct a new, contextual, and inclusive ecological value system.

Beyond environmental conservation, *Pasang ri Kajang* teaches that caring for the Earth is an act of faith. Nature is not an object of exploitation but a spiritual subject that deserves respect. Approaching Indigenous communities, therefore, is not only about conservation but also about

preserving a living faith deeply rooted in cultural practice.

A key finding of this study highlights the role of the *Ammatoa* as an ecological imam, a spiritual leader who bridges faith, tradition, and ecology within an integrated praxis of life. As the guardian of *Pasang*, the *Ammatoa* interprets ancestral teachings as ecological revelation that regulates the balance between humans and nature. His leadership is grounded not in political power but in moral and spiritual authority, embodying a form of ecospiritual leadership that parallels Jürgen Moltmann's idea of humans as "priests of creation" and Leonardo Boff's concept of the "Earth as the body of God." In the *Ammatoa*, theology and ecology are inseparably intertwined: to protect the forest is to preserve faith, and simplicity itself becomes the highest form of ecological devotion.

Thus, ecotheology is no longer an abstract or elitist notion, but a living practice transmitted across generations through oral traditions, rituals, and daily acts. This study opens opportunities for future research to explore other local traditions that contain ecotheological values, enriching the cross-cultural discourse of theology and environmental ethics.

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## REFERENCES

- Abdullah, Irwan. 2010. *Konstruksi dan Reproduksi Kebudayaan*. Yogyakarta: Pustaka Pelajar.
- Amin, S. J. 2019. "Talassa Kamase-Mase dan Zuhud: Titik Temu Kedekatan pada Tuhan dalam Bingkai Pasang Ri Kajang dan Ilmu Tasawuf." *KURIOSITAS* 61–75.
- Amsal, B., and R. N. Putri. 2022. "Ekofeminisme Masyarakat Kajang: Ilmu dan Amalnya." *MIMIKRI: Jurnal Agama dan Kebudayaan* 8(1):162–188.
- Berkes, Fikret. 2008. *Sacred Ecology*. 2nd ed. New York: Routledge.
- Berry, Thomas. 1999. *The Great Work: Our Way into the Future*. New York: Bell Tower.
- Bird-David, Nurit. 1999. "Animism Revisited: Personhood, Environment, and Relational Epistemology." *Current Anthropology* 40(Supplement):S67–S91.
- Boff, Leonardo. 1997. *Cry of the Earth, Cry of the Poor*. Maryknoll, NY: Orbis Books.
- Conradie, Ernst M. 2005. *An Ecological Christian Anthropology: At Home on Earth?* Aldershot: Ashgate.
- Conradie, Ernst M. 2011. *Christian Theology and Environmental Responsibility in a World of Climate Change*. Stellenbosch: Sun Press.
- Ekawati, Nur. 2020. "Kearifan Lokal dan Tantangan Ekologis dalam Masyarakat Adat Kajang." *Jurnal Wawasan Sosial dan Budaya* 4(2):115–130.
- Fabella, Virginia, and Mary A. Torres, eds. 1983. *Doing Theology in a Divided*

- World. Maryknoll, NY: Orbis Books.
- Fabella, Virginia, and Sergio Torres. 1983. *Irruption of the Third World: Challenge to Theology*. Maryknoll, NY: Orbis Books.
- Fathurrahman, M. Farid. 2023. *Konstruksi Ekoteologi Patung di Desa Tana Toa Kajang, Bulukumba, Sulawesi Selatan*. Skripsi, UIN Sunan Kalijaga Yogyakarta.
- Hadiz, Vedi R. 2017. "Power and Forest Governance: A Study of the Kajang Customary Community." *Indonesian Journal of Environmental Law and Policy* 2(1):23–39.
- Hafid, A. 2013. "Sistem Kepercayaan pada Komunitas Adat Kajang Desa Tanah Towa Kecamatan Kajang Kabupaten Bulukumba." *Patanjala: Journal of Historical and Cultural Research* 5(1):1–19.
- Katu, Samiang. 2018. "Pasang Ri Kajang (Suatu Kajian dari Sudut Fenomenologi Agama)." *Al-Qalam* 5(1).
- Kumoro, Nindy Budi. 2020. "Dayak Kaharingan di Tengah Perubahan Sosial Ekologi dan Praktik Perpindahan Agama di Pedesaan Kalimantan Tengah." *Jurnal Masyarakat dan Budaya* 22(1).
- La Usman. 2021. "Pasang Ri Kajang dan Konsep Ekospiritualitas Masyarakat Adat." *Jurnal Adat dan Lingkungan* 6(1):51–67.
- Li, Tania Murray. 2007. *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham: Duke University Press.
- Maarif, Samsul. 2016. "Kajian Kritis Agama Lokal." Pp. 35–60 in *Studi Agama di Indonesia: Refleksi Pengalaman*.
- Maarif, Samsul. 2017. "Meninjau Ulang Definisi Agama, Agama Dunia, dan Agama Leluhur." Pp. 13–48 in *Kebebasan, Toleransi dan Terorisme: Riset dan Kebijakan Agama di Indonesia*.
- McFague, Sallie. 1993. *The Body of God: An Ecological Theology*. Minneapolis: Fortress Press.
- Misbah. 2015. "Nilai-nilai Sosial dalam Pasang Ri Kajang." *Jurnal Pendidikan dan Kebudayaan* 21(3):230–245.
- Moltmann, Jürgen. 1985. *God in Creation: A New Theology of Creation and the Spirit of God*. London: SCM Press.
- Moltmann, Jürgen, and Margaret Kohl. 2000. *Experiences in Theology: Ways and Forms of Christian Theology*. Minneapolis: Fortress Press.
- Naess, Arne. 1973. "The Shallow and the Deep, Long-Range Ecology Movement." *Inquiry: An Interdisciplinary Journal of Philosophy* 16(1–4):95–100.
- Northcott, Michael S. 1996. *The Environment and Christian Ethics*. Cambridge: Cambridge University Press.
- Posey, Darrell A. 1999. *Cultural and Spiritual Values of Biodiversity*. Nairobi: United Nations Environment Programme.
- Purwanto, Yudi. 2017. "Kearifan Lokal dan Pelestarian Lingkungan: Telaah Sasi, Awig-Awig, dan Larangan Adat." *Jurnal Ekologi dan Lingkungan* 9(2):101–114.
- Rismawati. 2019. "Peran Ammatoa dalam Menjaga Keseimbangan Ekologis Hutan Adat Kajang." *Jurnal Komunitas Adat dan Lingkungan* 3(1):89–102.
- Rockström, Johan, et al. 2009. "A Safe Operating Space for Humanity." *Nature* 461(7263):472–475. <https://doi.org/10.1038/461472a>.
- Ruether, Rosemary Radford. 1992. *Gaia and God: An Ecofeminist Theology of Earth Healing*. San Francisco: HarperSanFrancisco.

- Ruether, Rosemary Radford. 1998. *Introducing Redemption in Christian Feminism*. London: A & C Black.
- Saharuddin. 2012. "Kamase-Masea dan Harmoni Ekologis dalam Masyarakat Kajang." *Jurnal Sosiologi Reflektif* 6(2):87–104.
- Safitri, Maya. 2017. "Politik Pengakuan Masyarakat Adat: Studi atas Perda Masyarakat Adat Kajang." *Jurnal Hukum Lingkungan Indonesia* 3(1):21–38.
- Santmire, H. Paul. 2000. *Nature Reborn: The Ecological and Cosmic Promise of Christian Theology*. Minneapolis: Fortress Press.
- Santmire, H. Paul. 2000. "In God's Ecology." *The Christian Century* 117(13):1300–1305.
- Sari, Rini Andini. 2020. "Pendekatan Sosiologis dalam Studi Pasang Ri Kajang." *Jurnal Sosial Humaniora* 10(1):33–46.
- Shiva, Vandana. 2005. *Earth Democracy: Justice, Sustainability, and Peace*. Cambridge: South End Press.
- Syamsurijal, S. 2024. "Membangun Keseimbangan Ekosistem: Studi Ritual Lingkungan di Komunitas Karampuang, Sinjai." *Pangadereng: Jurnal Hasil Penelitian Ilmu Sosial dan Humaniora* 9(2):156–168.
- The Washington Post. 2023. "The Forest Guardians of South Sulawesi." [International News Article]. Accessed May 2025.
- United Nations Development Programme (UNDP). 2015. *Equator Prize Winner: Indigenous Kajang Community, Indonesia*. <https://www.undp.org>.
- Usman, La. 2021. "Teologi Lingkungan dalam Tradisi Pasang: Tinjauan Filosofis dan Kontekstual." *Jurnal Agama dan Lingkungan* 5(1):73–88.
- Wahana Lingkungan Hidup Indonesia (WALHI) and Aliansi Masyarakat Adat Nusantara (AMAN). 2021. *Laporan Kondisi Hutan Adat di Indonesia: Studi Kasus Masyarakat Kajang*. Jakarta: WALHI.
- Wekke, Ismail Suardi, and A. Riswandi. 2023. *Kajang, Hutan, dan Masyarakat Konjo: Adat dalam Melestarikan Lingkungan*.
- White, Lynn. 1967. "The Historical Roots of Our Ecologic Crisis." *Science* 155(3767):1203–1207. <https://doi.org/10.1126/science.155.3767.1203>.