

ECOLOGICAL THEOLOGY IN GMIH LITURGY AND ITS ROLE AS THE CHURCH'S EDUCATIONAL RESPONSIBILITY TOWARD THE ENVIRONMENTAL CRISIS IN NORTH MALUKU

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Abstract

This study aims to examine the ecological-theological content embedded in GMIH's liturgical practices, analyze perceptions of mining-affected communities regarding environmental impacts, and formulate educational recommendations for the church by integrating empirical findings and theological reflection. The research employs a mixed-methods, convergent design, integrating quantitative and qualitative data simultaneously. The quantitative component was conducted by distributing structured questionnaires to a purposive sample of affected residents, with descriptive percentages used to assess the intensity of perceptions regarding air pollution, limited access to clean water, waste management issues, and economic impacts associated with mining activities. The qualitative component consists of in-depth interviews with congregational leaders, GMIH ministers, and affected community members, as well as document analysis of GMIH liturgical texts, using transcription, coding, and thematic analysis. Data integration was carried out through side-by-side comparison, linking numerical findings with contextual narratives and theological interpretation to achieve a more comprehensive understanding. The findings indicate a clear correspondence between the ecological experiences of local communities, who identify air pollution, water scarcity, and waste management as primary concerns, and the limited explicit ecological-educational dimension within GMIH liturgy. Although the liturgy contains theological narratives on creation and its stewardship, its pedagogical emphasis on contextual ecological issues, particularly the environmental impacts of mining in North Maluku, remains relatively limited. These findings highlight the strategic potential of GMIH liturgy as a space for theological formation and ecological education, which can be further developed to strengthen environmental awareness, ethical responsibility, and ecological stewardship among congregations in responding to local environmental crises.

Keywords: Ecological Theology; GMIH Liturgy; Mixed Methods; Ecological Education; North Maluku

Abstrak

Penelitian ini bertujuan untuk menganalisis kandungan teologi-ekologi dalam praktik liturgi GMIH, mengkaji persepsi masyarakat lingkaran tambang terhadap dampak lingkungan, serta merumuskan rekomendasi edukatif bagi gereja melalui integrasi temuan empiris dan refleksi teologis. Penelitian menggunakan pendekatan mixed methods dengan desain convergent, yang menggabungkan

data kuantitatif dan kualitatif secara simultan. Komponen kuantitatif dilakukan melalui penyebaran kuesioner terstruktur kepada sampel purposif masyarakat terdampak, dengan analisis deskriptif persentase untuk mengukur intensitas persepsi terhadap pencemaran udara, keterbatasan air bersih, pengelolaan sampah, serta dampak ekonomi akibat aktivitas pertambangan. Komponen kualitatif meliputi wawancara mendalam dengan tokoh jemaat, pelayan GMIH, dan warga terdampak, serta analisis dokumen liturgi GMIH melalui proses transkripsi, pengkodean, dan analisis tematik. Integrasi data dilakukan menggunakan side-by-side comparison, yang mempertemukan temuan numerik dengan narasi kontekstual dan interpretasi teologis untuk memperoleh pemahaman yang lebih komprehensif. Hasil penelitian menunjukkan adanya korespondensi antara pengalaman ekologis masyarakat, yang menempatkan pencemaran udara, keterbatasan air bersih, dan persoalan sampah sebagai isu utama, dengan terbatasnya dimensi edukatif ekologis dalam liturgi GMIH. Meskipun liturgi memuat narasi teologis mengenai penciptaan dan pemeliharaan ciptaan, penekanan pedagogis terhadap isu ekologis kontekstual, khususnya dampak aktivitas pertambangan di Maluku Utara, masih relatif minimal. Temuan ini menegaskan bahwa liturgi GMIH memiliki potensi strategis sebagai ruang formasi teologis dan edukasi ekologis, yang dapat dikembangkan untuk memperkuat kesadaran, etika, dan tanggung jawab ekologis jemaat dalam menghadapi krisis lingkungan di tingkat lokal.

Kata Kunci: *Teologi-ekologi; liturgi GMIH; mixed method; pendidikan ekologis; Maluku Utara*

INTRODUCTION

The ecological crisis has become one of the major global issues attracting widespread attention from diverse sectors, including religious communities and governmental institutions. Environmental degradation, climate change, deforestation, and air and water pollution indicate that humanity's relationship with the natural world is undergoing a grave, systemic imbalance. Within the framework of state policy, the Government of Indonesia, through the Ministry of Environment and Forestry

(Kementerian Lingkungan Hidup dan Kehutanan [KLHK]), has continued to pursue environmental recovery, one of its principal initiatives being the Forest and Land Rehabilitation Program (*Rehabilitasi Hutan dan Lahan* [RHL]). In 2021, this program was implemented across 34 provinces, covering a total area of 151,073.84 hectares, including 2,810.03 hectares in North Maluku Province (Kementerian Lingkungan Hidup dan Kehutanan 2021). These data indicate that environmental degradation has become a matter of

serious concern within the national development agenda.

From a theological perspective, ecological issues have likewise become an important arena of struggle for the church. Several theologians have emphasized that human beings bear a moral and spiritual responsibility to care for creation as an integral dimension of the mandate of faith. Julianus Mojau argues that humanity is called to live in a responsible relationship with nature; accordingly, acts that destroy the environment fundamentally constitute a denial of humanity's theological responsibility as stewards of creation (Mojau, 2019). The ecological crisis, therefore, is not merely an environmental problem, but also an ethical and theological one that calls for a response from the community of faith.

Within the local church, the Evangelical Christian Church in Halmahera (*Gereja Masehi Injili di Halmahera* [GMIH]) has also demonstrated concern for environmental issues. This is reflected in ecclesiastical documents produced through the *Sidang Sinode* (SS) Dorume, which identifies

environmental concerns as part of the church's ongoing theological and pastoral struggle. Even earlier, environmental issues had already been discussed at the 2007 GMIH Synod Assembly in the North Mother Region, Tiga Sudara Village, and were subsequently integrated into the five grand strategies of GMIH ministry for a twenty-five-year period (beginning in 2012). This indicates that, at the institutional level, GMIH has recognized the church's responsibility in addressing environmental problems.

This theological awareness is also reflected in the church's liturgical practice. In GMIH worship liturgies, particularly those for the first Sunday and the Advent season, there are liturgical formulations that emphasize the theology of creation, for example, in the ordination and greeting section, which declares: "*Our help is in the name of the Lord, who made heaven and earth.*" This expression bears a close theological affinity to the Apostles' Creed, which states: "*I believe in God the Father Almighty, Creator of heaven and earth.*" Such formulations affirm the conviction of faith that God is the Creator and

Owner of the whole universe. Within the framework of ecological theology, this confession should encourage believers to regard nature as part of God's creation, to be cared for and honored.

Nevertheless, although there is a theological and liturgical acknowledgment of God as Creator, the church's practical contribution to addressing the environmental crisis remains relatively limited. At the same time, various areas in North Maluku Province have recently experienced a range of environmental problems. This degradation has been driven by multiple factors, including low ecological awareness among communities in managing the environment, such as poor waste disposal practices, unsustainable forest and land exploitation, and the continued expansion of mining activities.

A growing body of research indicates that the expansion of the mining industry, particularly the nickel industry in North Maluku, has generated significant ecological and social consequences. Andi Rahmana Saputra, a researcher from *Aksi Ekologis dan Emansipasi Rakyat* (AEER), observes that the presence

of nickel industries such as PT Indonesia Weda Bay Industrial Park (IWIP) has not only stimulated local economic growth but has also produced a range of environmental and public health problems as a result of escalating air pollution and the disruption of community living spaces, including forest areas used for cultivation and marine zones relied upon by fishers (Saputra, 2022). This finding is consistent with the report of Climate Rights International, which documents the impacts of IWIP and surrounding nickel mines on land, water systems, health, and local livelihoods. Beyond IWIP, nickel mining activities in North Maluku are also carried out in East Halmahera by PT Aneka Tambang Tbk. (Antam) and on Obi Island, South Halmahera, by the Harita Nickel group. The expansion of these activities has intensified pressure on local ecosystems.

This situation demonstrates that the environmental crisis in North Maluku is not merely an ecological issue, but also a social, economic, and theological one that calls for the involvement of multiple stakeholders, including the church. As a faith community living in society, GMIH

has strategic potential to cultivate ecological awareness among its congregants through various pastoral and educational ministries. One important sphere through which such awareness may be nurtured is church liturgy, because liturgy functions not only as an order of worship, but also as a means of shaping faith, values, and the ethical life of the Christian community (Sarah et al., 2024).

In light of this reality, the present study proceeds from the question of how church liturgy may be understood and developed as a medium of ecological education for the congregation. More specifically, this study aims to examine how GMIH liturgy may be reconstructed or reordered so that it not only affirms the theological confession of God as Creator but also encourages concrete congregational action to protect and care for the environment. Accordingly, this study is expected to contribute to the church's efforts to formulate both an educative responsibility and an ecological praxis in the face of the increasingly severe environmental crisis in North Maluku.

RESEARCH METHOD

The methodology of this study employs a mixed-methods, convergent design, integrating quantitative and qualitative data to provide a comprehensive understanding of community perceptions of environmental issues and their implications for GMIH's educational role. The quantitative component was conducted by distributing structured questionnaires to respondents living in the mining-ring area of PT IWIP, using purposive sampling, i.e., selecting respondents based on their involvement in or exposure to environmental changes in the vicinity of the mining area. The quantitative data were analyzed using descriptive statistics, including percentages, tables, and graphs, in order to identify patterns in community responses to various environmental indicators. Meanwhile, the qualitative component was conducted through in-depth interviews with congregational leaders, affected residents, and GMIH ministers to understand how they interpret ecological problems and the church's responsibility in responding to them.

Data collection was conducted in several stages: preliminary observation, the distribution of questionnaires that had been tested for validity and reliability, and semi-structured interviews to explore the experiences and perspectives of community members regarding the impacts of mining and the church's role in responding to the environmental crisis. The data were then verified through triangulation among questionnaires, interviews, and field observations (Miles, Huberman, and Saldaña 2014, 31). The qualitative data were transcribed, coded, and analyzed using thematic analysis. In contrast, the integration of findings was conducted through a side-by-side comparison, juxtaposing statistical results with narratives of residents' lived experiences. Through this approach, the study presents a more holistic understanding of the dynamics of ecological problems while also positioning liturgy and church education as potential spaces for fostering ecological awareness and responsibility among the congregation.

RESULTS AND DISCUSSION

Impacts Experienced by Local Communities

The ecological crisis in North Maluku has reached a deeply alarming level, as reflected in indicators of environmental degradation that continue to increase year after year. The rapid expansion of the nickel mining industry in Central Halmahera has led to massive deforestation, marine pollution, and land degradation, threatening the sustainability of local ecosystems. Local communities, which have long lived in harmony with nature, are now compelled to confront a range of adverse consequences, including the loss of livelihoods, reduced access to clean water, and an increasing risk of natural disasters such as floods and landslides. In its report, WALHI North Maluku states that mining activities have further exacerbated ecological destruction in Halmahera, with direct consequences for community well-being (WALHI North Maluku 2024). This phenomenon reveals a development paradox in which North Maluku's economic growth has occurred upon increasingly unsustainable ecological ruin (Lamaau, 2023).

Research conducted by Nexus3 Foundation and Tadulako University found contamination by the heavy metals mercury and arsenic in fish samples taken from the nickel mining and processing area of Weda Bay, Central Halmahera, North Maluku. The study also found that 47 percent of residents' blood samples contained mercury, while 32 percent showed arsenic levels exceeding safe limits. These findings were presented by Annisa Maharani, a researcher at Nexus3 Foundation, during a press conference in Jakarta on Monday, 26 May 2025. Field data collection was carried out by the Nexus3 team in collaboration with Tadulako University in July 2024. The samples examined included sediment, water, and fish collected from the Weda Bay area and the nickel industrial zone of PT Indonesia Weda Bay Industrial Park (IWIP) (Arif, 2025).

Excessive exploitation of natural resources, particularly through the nickel mining industry, has caused significant ecosystem damage in Halmahera and its surrounding islands. This phenomenon not only threatens environmental sustainability but also

affects the lives of local communities who depend on natural resources for their survival. Field research conducted through focus group discussions (FGDs) and in-depth interviews with communities in the mining area of PT IWIP reveals an urgent situation that requires serious, immediate attention (Interview with pastors and congregants in the mining-ring area, 29 July 2025).

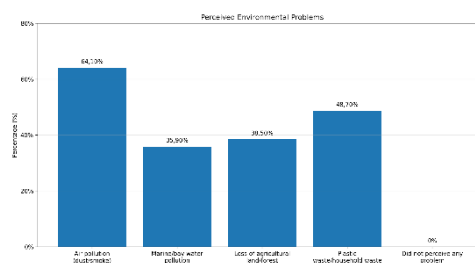


Figure 1. Communities in the PT IWIP mining-ring area

The percentages shown in the figure represent the direct responses of the interviewed participants and therefore reflect the community's actual perceptions and lived experiences regarding environmental impacts in the vicinity of the PT IWIP industrial area. The high percentage recorded in the air pollution category, at 64.10%, indicates that the community perceives dust and smoke as the most significant disturbances. This perception suggests that industrial activities exert a tangible,

readily perceptible influence on residents, particularly regarding declining air quality and the potential for adverse health effects. The exceptionally high level of public response in this category demonstrates a strong sensitivity to environmental changes that directly affect everyday life. At the same time, it reinforces air pollution as a primary issue requiring prompt intervention and more effective mitigation policies. Accordingly, the respondents' voices provide an empirical basis for understanding the complexity of the ecological problems they encounter in the field.

Respondents also expressed considerable concern about the loss of agricultural land or forest areas (38.50%) and about pollution of sea or bay waters (35.90%). These responses indicate that the community clearly perceives ecological transformations in both terrestrial and coastal zones. The loss of agricultural land and forests is understood not merely as a physical alteration of space, but also as the disappearance of livelihoods and of essential ecological functions that sustain residents' socio-economic life. Meanwhile, respondents' perceptions

of water pollution reflect concerns about the declining quality of waters that have long served as spaces of economic, social, and cultural activity. These two categories demonstrate that the community can identify structural, long-term ecological impacts. Perceptual data of this kind are important because they enrich our understanding of how local people interpret the environmental changes occurring around them. Thus, the respondents' voices reveal the extent to which physical environmental transformations are deeply interconnected with their overall well-being.

In addition, respondents' views on the problem of plastic waste or household refuse, which reached 48.70%, indicate that the community is also aware of the internal contribution of everyday behavior to local environmental conditions. This relatively high percentage shows that the community does not regard industry as the sole source of environmental problems, but also highlights the challenge of suboptimal domestic waste management. This perception reflects a collective awareness that environmental problems are

multidimensional and require the participation of all stakeholders. Interestingly, some respondents stated they did not perceive any environmental problems. This finding suggests differences in exposure levels, risk perception, or residential proximity to pollution sources. This diversity of responses opens the door to further analysis of the unequal distribution of environmental impacts and the differing perceptions held by community members. Accordingly, these response data not only portray ecological conditions, but also reveal the dynamics of environmental awareness as it develops within communities living in the mining-ring area.

The responses of the participants in this study further reinforce earlier findings that the ecological crisis and its consequences are indeed being directly experienced by residents living in the mining-ring area. More specifically, in the interviews, the researcher found that local communities are facing immediate and tangible impacts arising from mining activities, as illustrated in the following graph (Interview with pastors and

congregants in the mining-ring area, 29 July 2025):

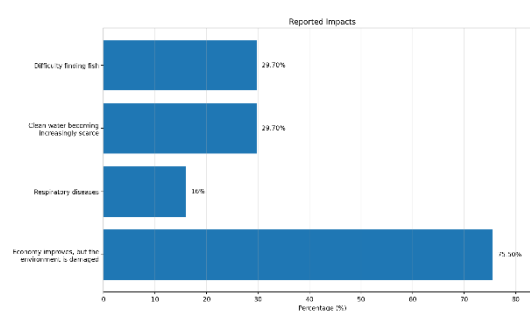


Figure 2. Residents most strongly experience impacts as a result of mining activities

The respondents' answers in the figure indicate that the majority of residents perceive a paradox of regional development, namely economic improvement occurring alongside environmental degradation, as reflected in the 75.50% figure. This finding suggests that the community is aware of the economic benefits generated by the mining industry, yet they also experience ecological burdens that cannot be ignored. Increased income, employment opportunities, and new economic activities have indeed emerged; however, these developments have been accompanied by a growing degradation in the quality of the living environment. The voices of residents indicate that material well-being does not necessarily correspond with ecological comfort. There is a social and moral struggle in assessing

whether improvements in living standards are worth the decline in environmental quality that has long sustained their lives. This response reflects the community's critical awareness of the conditions they face daily. Such awareness demonstrates an understanding that sound development should not only generate economic gains but also preserve environmental balance.

In addition to this issue, residents also reported that access to clean water has become increasingly limited, with responses reaching 29.70%. This difficulty indicates that mining activities affect the most basic dimensions of life that have long sustained the well-being of coastal and rural communities. Water that was once readily available from local sources has begun to decline in both quality and quantity, making it more difficult to meet everyday needs. This condition reveals mounting pressure on the natural infrastructure that has traditionally provided ecosystem services for residents. Moreover, difficulties in obtaining clean water often force communities to bear higher living costs, whether by purchasing water or undertaking independent treatment. This response

shows that the community does not merely observe environmental change as a physical phenomenon, but also experiences it as an additional burden in daily life. Restricted access to water is, therefore, an indicator that ecological pressures have already reached the level of primary human needs. A situation of this kind has generated growing awareness that the sustainability of water resources is an urgent issue amid industrial activity.

The interview data also show that 29.70% of respondents experienced difficulties in catching fish, while 16% reported respiratory problems resulting from mining activities. Difficulties in catching fish indicate disruption to aquatic ecosystems that have long served as the principal source of livelihood for many members of the community. Changes in water color, declining fish populations, and increasing sedimentation are among the phenomena residents frequently observe in their daily lives. Meanwhile, reports of respiratory illness reflect the direct impact of air pollution from mining operations and material transportation. These health disturbances demonstrate that

environmental problems do not end with ecological damage but extend into the biological dimension, affecting the community's productivity and well-being. Together, these responses indicate that residents are experiencing multiple and interconnected forms of vulnerability. The findings also underscore the importance of protecting air and water quality so that industrial pressures do not progressively erode community life. The voices of respondents thus illustrate their awareness of the close relationship between environmental conditions and quality of life.

These percentages indicate that the ecological crisis occurring in the mining-ring area of PT IWIP has indeed penetrated multiple dimensions of community life. Nevertheless, the findings also reveal diverse responses when respondents were asked who should bear responsibility for environmental stewardship amid the community's damage (Interview with community members/GMIH residents, 28 July 2025).

The diagram shows that 73% of respondents consider the

community to be most responsible for protecting the environment. This figure reflects a collective awareness that ecological stewardship is not merely the concern of formal institutions, but also an integral part of everyday life. Respondents appear to recognize that individual behavior—such as properly disposing of waste, managing household refuse, and maintaining the cleanliness of living spaces—has a significant impact on surrounding environmental conditions.

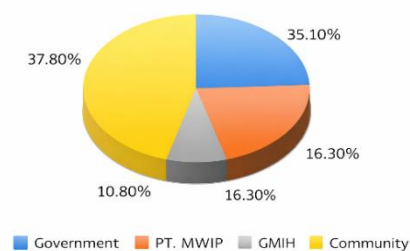


Figure 3. Parties Responsible for Environmental Stewardship

This assessment suggests that the community sees itself as the primary actor, positioned closest to both the sources of environmental problems and their possible solutions. Such awareness also reflects the view that positive environmental change must begin at the most basic level. In a social context, this indicates substantial potential for community-

rooted participatory movements. Many residents believe that collective efforts are more effective when they begin within the family and small community circles. This response thus offers an important reflection on communities' capacity to assume ecological responsibility independently.

On the other hand, 37.80% of respondents identified the government as a party bearing significant responsibility for environmental protection. This percentage indicates that the community considers the state's role, particularly through local government, essential for formulating regulations, conducting oversight, and ensuring legal enforcement against environmentally destructive activities. Respondents appear to understand that public policy has considerable influence in regulating the relationship between industrial activity, society, and the carrying capacity of the environment. Their expectations of the government include improved oversight, greater transparency in information, and the imposition of firm sanctions for ecological violations. In addition, some residents view the government

as the institution capable of providing supporting facilities such as waste management systems, sanitation infrastructure, and environmental education programs. These expectations reveal a need for strong and well-structured environmental governance. Trust in the role of government indicates that the community still regards the state as the principal guarantor of the sustainability of shared living space. This perspective holds that the government should be tangibly present in efforts to preserve the environment.

The role of PT IWIP as an industrial actor also emerged as a concern among respondents, with 35.10% stating that the company bears major responsibility for environmental conditions. This percentage indicates that residents are aware of the scale of industrial impacts on ecological change and therefore view corporate responsibility as proportionate to the scale of its operations. In the respondents' view, PT IWIP is expected to play a more active role in environmental rehabilitation, waste management, and the reduction of pollution generated by production

processes. In addition, some residents believe that the company possesses the financial and technological capacity to implement more environmentally sustainable industrial practices. Such responsibility, in their view, does not only involve controlling negative impacts, but also contributing positively through community empowerment programs and ecological education. The voices of respondents reflect a critical assessment of the relationship between industrial activity and environmental sustainability. This awareness demonstrates that residents demand both moral and operational commitment from the company. The community expects industry to carry out its role ethically and transparently in safeguarding the environment.

In the interviews, 10.80% of respondents identified the Evangelical Christian Church in Halmahera (*Gereja Masehi Injili di Halmahera* [GMIH]) as one of the parties responsible for environmental protection. Although this percentage is lower than the other categories, it nonetheless indicates that residents consider religious institutions to have

a moral and educational role that cannot be ignored. Respondents view the church as a space for shaping ethics, behavior, and communal awareness regarding the values of creation. Through preaching, teaching, and other educational activities, the church is perceived as capable of instilling the theological understanding that human beings are entrusted with the mandate to care for the earth. Moreover, the role of the church is often associated with its ability to cultivate faith-based ecological awareness, so that environmentally responsible behavior may grow from spiritual conviction. The presence of the church is also seen as a unifying force within the community, capable of influencing collective action to care for the environment. Although the percentage is relatively small, this response suggests that residents still recognize the importance of moral agency within ecological movements. It further demonstrates that environmental issues are not merely technical matters, but also touch ethical and spiritual dimensions.

The diversity of responses illustrated in Figure 3 demonstrates

that community members recognize that safeguarding the environment in the face of various crises is the primary responsibility of the community itself. At the same time, it cannot be overlooked that PT IWIP, the Central Halmahera Regency Government, and the Provincial Government of North Maluku also play important roles in carrying out the mandate of environmental stewardship. Simultaneously, the church is likewise called to assume its role in caring for God's creation.

GMIH and Its Responsibility in the Ecological Crisis in North Maluku

The collective awareness of local communities regarding the relationship between environmental degradation and human well-being is steadily increasing. Within such a context, social actors, including religious institutions, are viewed as part of the shared solution. GMIH occupies a unique position from which to respond to this crisis, owing to its pastoral role, its congregational networks, and its moral legitimacy within North Maluku society. As a community of faith, GMIH bears a theological responsibility to care for creation as an integral expression of

its faith. The biblical teaching concerning stewardship and the preservation of creation affirms that faith and ecological practice cannot be separated.

From the perspectives of liturgy and practical theology, the role of the church extends beyond formal worship services; it also shapes the community's ethical orientation toward the environment. The church can formulate a theological narrative that bridges the lived experience of environmental destruction with its liturgical calling to ecological justice. GMIH needs to articulate the doctrine of creation care into concrete pastoral programs, as reflected in one of its five grand strategies. Such programs include environmental education, policy advocacy, and practical support for victims of pollution and affected areas. This role must be situated within a framework of shared responsibility among communities, government, and industrial actors. A contextual theological approach will strengthen the legitimacy of GMIH's actions in the eyes of both its congregants and the wider society.

In the course of this research, the researcher recorded various inputs and recommendations from

respondents, indicating that GMIH should pay attention to several matters, as illustrated below:

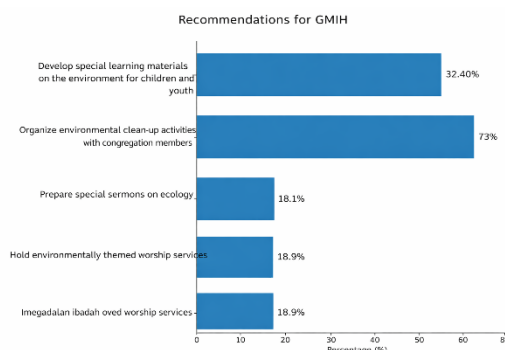


Figure 4. Recommendations for GMIH

The respondents' answers in the figure indicate that the strongest recommendation for GMIH is to organize environmental cleanup activities with local congregants, with 73% supporting it. This figure indicates that the community and GMIH members consider participatory and cooperative approaches to be the most effective strategy for cultivating ecological concern at both congregational and societal levels. The interview results show that residents perceive such activities not merely as physical acts, but also as moments of education and the formation of collective character. Environmental cleanup practices are understood as capable of fostering a sense of ownership over shared living space, strengthening social

relationships, and encouraging ecological awareness that arises from direct experience. Moreover, participation in collective activities creates space for the church to appear as an institution tangibly present in public issues. Residents believe that the church's involvement in concrete ecological practices will affirm its moral commitment to the care of creation. The voices of respondents reveal an expectation that the church should become a driving force, integrating spirituality and ecological action holistically.

In addition to this recommendation, the interview results indicate that 32.40% of respondents proposed that GMIH should formulate specific teaching materials on the environment for children and adolescents. In comparison, 18.10% encouraged the preparation of sermons specifically addressing ecological issues, and 18.90% called for worship services with environmental themes. These percentages suggest that the community considers faith-based ecological education an urgent necessity for the younger generation, who will face the long-term

consequences of environmental change. Respondents believe that instruction from an early age will shape an ecological mindset rooted in theological values concerning human responsibility toward nature. At the same time, the demand for sermons and worship services with environmental themes indicates that residents want ecological concerns to become an integral part of the congregation's liturgy and spiritual life. This indicates that the community sees the church as occupying a strategic position in integrating religious teaching with ecological awareness. Through teaching, preaching, and liturgical practice, the church can instill a deeper understanding of the relationship between faith and environmental stewardship. These responses reflect the expectation that the church should cultivate a sustainable ecological culture throughout the entire rhythm of congregational life.

Practically speaking, GMIH may prioritize environmental education for children, youth, and families as a preventive effort. Contextual teaching materials, especially those addressing

ecological issues and their impacts, are essential. Such education strengthens younger generations' awareness of the relationship between faith, ethics, and the preservation of natural resources. Beyond curriculum development, action programs such as collective environmental cleanup and reforestation may become liturgical practices that affirm faith in action. In the medium term, such programs can enhance congregants' and communities' capacity to demand accountability from parties responsible for environmental damage. These educational and practical activities should be designed based on empirical data on pollution levels and their impacts (Jaya, Az-Zahra, and Dewi 2024). Collaboration with research institutions and non-governmental organizations will help ensure that interventions are evidence-based and responsive to local needs. In this way, GMIH acts not only as a moral narrator but also as a facilitator of socio-ecological rehabilitation.

Public advocacy is another important arena in which GMIH may struggle for environmental justice on behalf of local communities. GMIH must be vocal in leveraging national

and regional networks to raise awareness of pollution and its health impacts at the policy level. In the context of Weda Bay, NGO reports and research findings provide a strong factual basis for advocacy (Climate Rights International 2024). GMIH may build coalitions with civil society organizations to press for the enforcement of environmental regulations and compensation for victims. Ethical advocacy, however, must preserve the church's independence while prioritizing the safety and well-being of both communities and congregants. A church-based advocacy approach may include constructive dialogue with local government and relevant companies regarding social and environmental responsibility. Advocacy measures should be grounded in principles of transparency, witness protection, and, where relevant, the defense of community rights. Through advocacy, the church can strengthen demands for corporate accountability regarding environmental impacts and public health. By positioning itself in this way, GMIH affirms its role as an

agent of social transformation and a guardian of the common good.

Ethically, GMIH's involvement in environmental issues should be grounded in the principle of intergenerational justice. Environmental destruction occurring today diminishes future generations' capacity to enjoy healthy natural resources. The church is entitled to articulate a moral voice calling for sustainable development planning and the restoration of degraded areas. The implementation of this principle requires the church to participate in the monitoring of environmental recovery following mining activities. GMIH may advocate for habitat restoration plans, the replanting of deforested areas, and the ongoing monitoring of environmental quality. The church's long-term involvement demonstrates a commitment to responsibility that extends beyond periodic leadership cycles. In addition, the development of internal congregational policies concerning environmentally friendly practices should be encouraged. The integration of environmental ethics into the order of worship, ritual life, and certain ecclesial celebrations will

strengthen a culture of creation care among its members. These steps position the church as both a moral and practical agent in ecological restoration efforts.

One of the theological dysfunctions that has long existed within many Christian communities is the sharp separation between faith and responsibility toward the earth and the environment. A theology overly focused on individual salvation and the afterlife often neglects the ethical dimension and the responsibility toward creation, which are integral to the Christian faith. This dualistic understanding, which separates spirit from matter and the sacred from the secular, has caused the church to lose relevance in confronting the contemporary ecological crisis. As a result, believers often become apathetic toward environmental issues, viewing them as worldly matters unrelated to their faith.

Exploring the Meaning of Ecotheology in GMIH Liturgy

The liturgical narrative of the GMIH has long expressed the congregation's confession of faith in creation, including the acknowledgment of

God as the Creator and the recognition that the earth and all that it contains—human beings and the natural world alike—constitute an ecological community. This confession is reflected in GMIH liturgical texts, which proclaim that *“God, the Creator of heaven and earth, will continually preserve you forever.”* Such a statement is not merely a liturgical formula inherited within the tradition of the church; rather, it represents a confession of faith that affirms the universal and continuous nature of God's sustaining care for creation.

GMIH liturgy does not merely present ritual elements but also contains a profound theological dimension concerning the relationship between faith and the created order. Within these liturgical narratives, the acknowledgment of God as the Creator of heaven and earth and the Sustainer of all creation becomes the central focus of faith experience. This confession affirms that human beings are not separate entities from the environment, but rather part of an ecological community called to live in harmony with creation. Such a theological perspective corresponds with the

concept of ecotheology, which situates environmental sustainability as an inseparable dimension of the vocation of faith. According to Ngabalin, ecotheology provides a theological foundation that connects worship practices with moral responsibility toward the earth (Ngabalin, 2020). Consequently, the liturgical narrative of GMIH functions to integrate personal faith with collective ecological awareness. This perspective underscores that environmental stewardship is not merely a social agenda but a component of a holistic Christian faith. Within this framework, liturgy becomes a theological space that educates the congregation to reinterpret its relationship with nature.

This understanding is particularly significant in responding to the ecological crisis occurring in North Maluku. Ecotheology within GMIH liturgy positions the doctrine of creation as the starting point for theological reflection on the natural world. Viewing creation as an interconnected community of life enables the church to reject the dualistic worldview that separates

human beings from nature. Such separation has contributed to exploitative attitudes that have spread culturally and economically (Inabuy, 2021). By incorporating ecotheological elements into its liturgy, the church affirms the inherent dignity of nature and its worthiness of respect.

Within the liturgical tradition of GMIH, this perspective can be observed in elements such as the *votum* and greeting, the commissioning and benediction, and in several other liturgical sections where the doctrine of creation appears implicitly, including the confession of sin. This approach helps congregants perceive ecological impacts as part of the dynamic relationship between humanity, creation, and God. At the same time, these liturgical narratives reinforce the conviction that God continually sustains creation under all circumstances. Confessions of faith of this kind encourage believers to internalize ecological responsibility as a response to God's love. Liturgy imbued with ecotheological meaning thus becomes a spiritual foundation for nurturing environmentally

responsible behavior beyond the walls of the church.

The incorporation of ecotheological elements into GMIH liturgy also has the potential to transform how congregants perceive and interact with their surrounding environmental realities. The confession that the earth is part of God's creation and is sustained by divine care introduces a new orientation for the actions of church members. According to Edhi Prasetyo and Ruben Nesimnasi, when the church theologically recognizes creation as a subject of life, ecological action becomes an authentic expression of faith (Prasetyo & Nesimnasi, 2025). In this sense, liturgy is not merely a sequence of words and symbols but a medium of ethical transformation that shapes the way congregants live. Such a transformation encourages believers to embody the care of creation concretely through sustainable lifestyles. This is particularly relevant for congregations and communities experiencing ecosystem degradation caused by mining activities, as is the case in North Maluku. Ecotheological liturgy broadens the meaning of ritual, ensuring it is not detached from

the congregation's lived experiences. This awareness becomes embodied in collective actions that prioritize environmental protection. In this way, liturgy functions as a form of faith education that also cultivates love for God's creation.

The meaning of ecotheology within GMIH liturgy also emphasizes that salvation concerns human life in an individualistic sense alone. Ecological salvation is understood as part of the broader narrative of God's redemptive work encompassing the whole of creation. According to Andrew J. Spencer, such a perspective enables the church to overcome anthropocentric views that frequently diminish the ecological significance of human life (Spencer, 2015). Liturgy grounded in strong ecotheological awareness proclaims that the restoration of relationships between humanity and nature forms part of God's universal plan of redemption. In liturgical practice, this is reflected in prayers and confessions of faith that include petitions for the healing of the earth. Such restoration is not merely symbolic but points toward collective actions that address both social and ecological structures.

This theological awareness helps congregations understand the environmental crisis as a call to transformation. Liturgy affirms that ecological salvation forms part of the eschatological hope of the Christian community. Such a perspective opens space for dialogue between faith and concrete action in caring for the fragile earth.

The presence of ecotheological content in GMIH liturgy can also be interpreted as a response to contemporary theological challenges that reject the separation between liturgy and worldly life. In contemporary theology, the sustainability of the earth is increasingly understood as an unavoidable field of dialogue between faith and science. For this reason, theological reflection can no longer remain confined to doctrinal formulations alone but must engage critically and constructively with scientific insights in order to articulate ethical, spiritual, and practical responsibilities for the preservation of creation (Tanzella-Nitti, 2024). Within the liturgical context, the narrative of creation's preservation enables congregants to

experience the interconnectedness between their faith and the environmental realities surrounding them.

From this perspective, liturgy becomes a space of theological learning that connects the teachings of faith with socio-ecological issues. The church is therefore called not only to be a community that celebrates ritual but also an agent of transformation that promotes the renewal of the created world. Liturgy imbued with ecotheological meaning offers a theological model that responds to the ecological pressures of the modern era. These findings strengthen the urgency for the church to integrate ecotheology as an essential component of its liturgical narrative. Ultimately, liturgy is not merely a tradition of the past but a living dialogue between faith, the empirical world, and the shared future of humanity. Such an approach is particularly relevant for churches confronting the profound challenge of systemic environmental degradation.

The exploration of ecotheological meaning provides a foundation for GMIH to develop a liturgy that is not only ritualistic but

also dialogical and contextual. A liturgy that encourages congregations to respond to ecological realities will strengthen collective awareness of shared responsibility for the earth. In other words, liturgy can function as both a conceptual and practical instrument for cultivating a sustainable culture of creation care. Dialogue between theology and ecological practice will shape a community of faith that is sensitive to environmental crises (Hasiholan, Sitanggang, and Usmanij 2023). Such sensitivity is urgently needed amid the complex challenges faced by church communities living under the threat of ecological degradation. Ecotheological liturgy can nurture a narrative of faith that enriches congregants' understanding of their role as stewards of creation. In this way, ecotheological content within liturgy becomes the foundation for transformative pastoral commitment. A living liturgy of this kind offers concrete direction for congregations to continue caring for and protecting the earth as a gift of God's creation.

Ecological Liturgy as a Space for Restoration

The theological foundations of ecology within the Christian tradition have developed significantly over the past several decades, marked by the emergence of numerous ecclesial documents and theological works addressing environmental issues. Pope Francis, in the encyclical *Laudato Si'*, calls for "care for our common home" and emphasizes that environmental degradation is a moral problem requiring an ethical response from all Christians (Francis, 2016). Contemporary theologians such as Sallie McFague have also developed theological models that regard nature as a subject with dignity and the right to live and flourish in accordance with the purpose of creation (McFague, 2016). The concept of "creation care" has thus become an important component of global theological discourse, challenging the church to participate actively in ecological movements as an expression of its witness of faith (Bouma-Prediger, 2010, p. 31).

The documents of the Second Vatican Council likewise opened the way for a more holistic understanding of the church's presence in the world, including responsibility for social and ecological realities (Silaen et al.,

2022). From this perspective, the church must not isolate itself in an “ivory tower” of spirituality. However, it should actively engage in transforming the world, including preserving the environment. The Christian theological tradition possesses rich resources that can be developed to foster a deep, faith-based ecological awareness.

Ecological liturgy represents the church’s effort to place nature at the heart of the congregation’s faith experience and spiritual practice. In the context of the ecological crisis in North Maluku, as described in the research findings, ecological liturgy becomes a space in which the relationship between humanity and creation can be reinterpreted more responsibly. Worship is no longer understood merely as a human encounter with God but also as an encounter with a wounded world. Liturgy thus serves as a bridge connecting the congregation’s spiritual life with the concrete need for environmental restoration. When congregants experience ecosystem degradation that affects their health and livelihoods, liturgy helps restore awareness of ecological

interconnectedness. This awareness enables congregants to view environmental issues not merely as technical concerns but as matters of faith and moral responsibility. According to Hizkia Anugerah Gunawan, liturgy can create a space of inner transformation that encourages ethical action for the sustainability of the earth (Gunawan, 2018). Such a space is crucial because it provides spiritual direction for congregants confronting ecological destruction. On this basis, ecological liturgy should be developed contextually within GMIH.

Ecological liturgy also functions as a space for healing the social memory of environmental damage experienced by communities, particularly those living in mining areas. The loss of land, the contamination of rivers, and the decline in public health can create collective wounds that require processes of restoration. Through prayer, hymns, and liturgical symbols, the church constructs new narratives of hope and the restoration of creation. Within the Christian tradition, liturgical memory often serves as a means of spiritual healing,

providing strength amid suffering. This process enables communities—and congregants in particular—to reinterpret ecological suffering within a framework of faith that offers meaning and direction. Research by Guntur Andika Alan Roh Lani and Maria Rosa Sihombing shows that liturgy sensitive to its context can strengthen social cohesion amid socio-ecological pressures (Lani & Sihombing, 2024). Ecological liturgy, therefore, contains not only theological content but also therapeutic value for communities. This is especially relevant for congregants and residents who directly witness and experience dramatic environmental changes. Liturgical space thus becomes a place where collective suffering can be acknowledged, processed, and transformed into renewed ecological awareness.

As a space of restoration, ecological liturgy invites congregants to perceive nature as a subject worthy of respect rather than as an object of exploitation. Through this shift in perspective, the church can renew a spiritual habitus that is more environmentally responsible. Biblical readings concerning creation, when

interpreted within the context of environmental destruction, can nurture an ethos of ecological responsibility. The church can affirm that caring for the earth is part of the vocation of faith rather than merely a social agenda. Transforming ecological habitus through liturgy has been shown to increase both environmental concern and concrete action. Participation in liturgical practices emphasizing the integrity of creation encourages congregants to act accordingly in their daily lives. In this way, liturgical space shapes a consistent ecological spirituality. Such spirituality provides the foundation for congregants to continue caring for the environment sustainably. Ecological restoration ultimately begins with the formation of new awareness cultivated within liturgy.

Ecological liturgy also broadens the congregation's understanding of worship as an action with direct implications for social life. Through liturgy, the church can articulate a prophetic stance toward industrial practices that damage the environment. Such a prophetic posture is not intended to create hostility but to uphold the dignity of

human life and the balance of creation. Prophetic liturgy opens space for critical dialogue between the church, government, and industrial actors within the framework of public ethics. In this sense, liturgical space reminds congregants of the importance of ecological justice as part of social justice. Liturgy thereby becomes an arena for restoring social structures distorted by environmental exploitation. A church that speaks prophetically strengthens its identity as a guardian of life. Ecological restoration thus also involves the restoration of more just and humane public ethics.

Ecological restoration through liturgy can also be seen in the use of ritual symbols that connect humanity and nature. Water, soil, fire, and wind may serve as liturgical symbols representing the sacredness of creation. In the context of Halmahera society, the symbol of water is particularly powerful because it is closely related to livelihood and identity, especially among communities living in coastal areas or along riverbanks. When such symbols appear in liturgical practice,

congregants participate symbolically in preserving an ecological memory that is nearly lost due to environmental destruction. Ecological symbols in Christian rites can strengthen congregations' ecological identity (Redinspirasi, 2024). Through these symbols, liturgy provides emotional and spiritual experiences that deepen a sense of connection with nature. Reinterpreting these symbols helps congregants rediscover ecological values that have been gradually eroded. Strengthening ecological symbolism encourages changes in life practices that are more attentive to the sustainability of creation. Liturgical space thus becomes a place where forgotten ecological memory can be revived.

Ecological liturgy as a space of restoration also includes elements of ecological education for congregants. Awareness of environmental degradation can be introduced through reflections, sermons, and liturgical teaching wisely and contextually. Through this integration, congregants come to understand that ecological issues are not merely external concerns but part

of everyday faith practice. Educational liturgy has proven effective in shaping long-term ecological attitudes and behavior within church communities. Ecological education within liturgy enables the church to communicate complex information in ways that are accessible to all members of the congregation.

Through this model, increased ecological awareness does not depend solely on external campaigns but emerges from deep faith reflection. This learning process builds congregants' capacity to participate actively in environmental restoration efforts. GMIH may become a center of ecological literacy that integrates theological insights with scientific knowledge. The synergy between faith and science strengthens the foundation of the church's ecological restoration movement.

Beyond its spiritual dimension, ecological liturgy can also mobilize practical environmental restoration at the congregational level. Activities such as tree planting, coastal cleanup, and waste reduction can be incorporated into the annual ministry calendar. When such actions are integrated as expressions of faith

rather than merely as social programs, they become more consistent movements. Liturgical practices accompanied by ecological action produce stronger and more sustainable social impacts (Budiman & Laukapitang, 2024). By linking worship with concrete action, liturgy restores the relationship between faith experience and social responsibility. Ecological action rooted in liturgy also strengthens community ownership of the environment. This, in turn, enhances social resilience, especially in regions experiencing industrial pressures such as Central Halmahera and other areas of North Maluku. The integration of liturgy and action enables the church to demonstrate its tangible role amid the ecological crisis. Environmental restoration thus proceeds hand in hand with the restoration of community life.

Ecological liturgy as a space of restoration offers a holistic approach to caring for the earth and restoring human dignity. Liturgy does not merely change how congregants perceive nature; it also influences how they live and act. By integrating spiritual, social, educational, and prophetic dimensions, ecological

liturgy becomes a comprehensive model of restoration. Theological studies and empirical research demonstrate that the church has great potential to pioneer ecological movements rooted in the community of faith (Sowa, 2023). Environmental restoration cannot be separated from the restoration of humanity's relationship with God, with others, and with creation. Through its liturgy, GMIH has the opportunity to strengthen an ecological spirituality that is adaptive to the local context. If practiced consistently, ecological liturgy can become a foundation for profound social and ecological transformation. In this way, the church becomes not only a witness of faith but also a witness of restoration for a wounded world.

CONCLUSIONS AND RECOMMENDATIONS

The reaffirmation of the meaning of eco-theology within the liturgy of the Evangelical Christian Church in Halmahera constitutes an urgent calling in the context of the ecological crisis that has affected North Maluku in recent years. Liturgy, as the center of ecclesial life, has significant

potential to shape the congregation's ecological awareness by integrating environmental care values into various elements of worship. GMIH is therefore called to assume an active role in environmental preservation as an integral dimension of the church's mission in the world.

The implementation of eco-theology within liturgical practice and the broader life of the church requires strong commitment from every level of ecclesial leadership, from the synod to the local congregation. Collaboration with multiple stakeholders—including government institutions, civil society organizations, and other religious bodies—is also essential to strengthen ecological initiatives in North Maluku. By reaffirming liturgy as a space for moral and spiritual formation that includes responsibility toward creation, GMIH can become a significant agent of ecological transformation.

The church's educational responsibility regarding environmental issues is not an optional addition but an inseparable part of the calling to love God and neighbor wholeheartedly. Through an

ecologically responsive liturgy, GMIH can bear witness to a faith that is both relevant and meaningful in addressing environmental challenges in North Maluku and the wider world.

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