



FASĀD FĪ AL-ARḌ AND ILLEGAL GOLD MINING IN JAMBUR TARUTUNG: AN ECOLOGICAL READING OF TAFSIR AL-MUNIR

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Abstract

Illegal gold mining, known in Indonesia as *Pertambangan Emas Tanpa Izin* (PETI), has generated serious ecological and social consequences in rural communities. Although Islamic environmental ethics and ecological tafsir have received growing scholarly attention, many studies remain normative and have not sufficiently connected Qur'anic exegesis with empirical ecological realities. This article examines ecological degradation caused by PETI in Lingkungan III Jambur Tarutung, Pasar Kotanopan Village, Mandailing Natal Regency, North Sumatra, through the concept of fasād fī al-arḍ in Tafsir al-Munir by Wahbah az-Zuhaili. The study employed a qualitative case study design combined with thematic Qur'anic interpretation (tafsīr maudhu'i). Primary data were collected through field observations and semi-structured interviews with six purposively selected informants, consisting of community leaders, religious leaders, and community members connected to mining-related activities. Secondary data were obtained from Tafsir al-Munir, ecological tafsir literature, maqāṣid al-sharī'ah studies, and previous research on illegal mining and environmental degradation. The findings show that PETI has altered river conditions, increased sedimentation, degraded agricultural land, resulted in unreclaimed mining pits, intensified livelihood vulnerability, and affected patterns of religious and community participation. From the perspective of Tafsir al-Munir, these impacts represent fasād fī al-arḍ because they disrupt ecological balance, weaken public welfare, and reflect the failure to uphold human responsibility as khalīfah. This article argues that Tafsir al-Munir provides a contextual ethical framework for interpreting local ecological degradation and linking environmental responsibility with social welfare, moral accountability, and ecological restoration.

Keywords: *Ecological Degradation; Illegal Gold Mining; Fasād Fī Al-Arḍ; Tafsir Al-Munir; Islamic Environmental Ethics*

A. Introduction

Illegal gold mining, commonly referred to in Indonesia as *Pertambangan Emas Tanpa Izin* (PETI), has produced serious ecological consequences in many parts of the country. Its impacts include water pollution, land degradation, sedimentation, and the loss of productive agricultural land (Hartanto et al., 2024). Broader patterns of environmental degradation in Indonesia are closely associated with unsustainable natural resource exploitation, including illegal logging, unauthorized mining, and environmentally destructive agricultural practices (Darurat Ekologis, 2021). These practices not only

threaten biodiversity and ecological stability but also deepen the socio-economic vulnerability of rural communities whose livelihoods depend on land, rivers, and other local natural resources.

One such case can be found in Lingkungan III Jambur Tarutung, Pasar Kotanopan Village, Mandailing Natal Regency, North Sumatra. Field observations and interviews with community leaders and local residents indicate that illegal gold mining has expanded around rivers, agricultural areas, and settlements. Informants reported that the expansion of mining activities in recent years has damaged parts of community farmland through sediment accumulation from mining excavations and other environmental changes affecting agricultural areas (Interview with Tagor Indra Mulia, 2026). Mining operations are carried out using heavy equipment and suction dredging machines locally known as *dompeng*, often in close proximity to residential areas, riverbanks, and productive farmland.

The ecological effects of these activities are visible in several aspects of local life. Field observations and informant testimonies show that rivers previously used for domestic needs and agricultural irrigation have undergone noticeable changes, particularly in terms of turbidity and sedimentation. Residents also reported declining agricultural productivity, increased concern over flooding and landslides due to abandoned mining pits, and reduced environmental comfort caused by mining operations that continue for long periods. These conditions indicate that ecological degradation in Jambur Tarutung is not limited to physical environmental damage. It also affects the social and economic resilience of communities that depend on agriculture and local ecological resources.

The problem is further complicated by weak law enforcement and fragmented environmental governance. Previous studies have shown that inconsistent regulation, corruption, and inadequate monitoring mechanisms make illegal mining difficult to control (Muryani, 2019). In addition, incoherent environmental policies often weaken accountability for ecological damage, while decentralized natural resource governance has been criticized for failing to provide adequate protection for local communities and ecological sustainability (Tustinaningsih & Akhmaddhian, 2025). As a result, local communities face a persistent dilemma between meeting short-term economic needs and bearing the long-term consequences of environmental degradation.

This ecological crisis occurs within a predominantly Muslim community, where religious values are expected to provide ethical guidance for human relations with nature. In Islamic thought, human beings are understood as *khalīfah* on earth, entrusted with the responsibility to maintain ecological balance and avoid destructive actions, or *fasād* (Salim, 2025). The Qur'an explicitly links corruption and destruction on earth to human conduct, particularly in QS. Ar-Rum (30):41. From this perspective, ecological degradation is not merely a technical or material problem, but also reflects moral and spiritual failure in the use of natural resources (Helmi et al., 2026).

Within Qur'anic exegesis, Wahbah az-Zuhaili's *Tafsir al-Munir* offers a relevant framework for examining the relationship between human action, environmental order,

and moral responsibility. Az-Zuhaili pays significant attention to the ethical relationship between human beings and the environment (Diningrum et al., 2024). His interpretation of *fasād fī al-arḍ* extends beyond physical destruction and refers to violations of divine trust, excessive exploitation of natural resources, and social injustice (Farida et al., 2025). In this sense, tafsir functions not only as textual explanation but also as an ethical lens for interpreting contemporary ecological crises.

The ecological relevance of Islamic ethics is also reinforced by the framework of *maqāṣid al-sharī'ah*. Environmental preservation may be understood as part of the primary necessities (*ḍarūriyyāt*) because it is directly related to the continuity of human and non-human life (Munawaroh & Syaikhon, 2024). This principle positions environmental protection not merely as an ethical preference, but as a normative responsibility in Islam. It also resonates with the Indonesian constitutional guarantee of the right to a healthy environment, thereby opening space for synergy between religious ethics and state policy in responding to ecological crises (Munir, 2020).

Although ecological tafsir has received growing scholarly attention, much of the existing literature remains primarily normative and focuses on Qur'anic environmental verses without sustained engagement with local ecological realities through empirical investigation (Zulfikar et al., 2023). Conversely, studies on PETI generally emphasize legal, policy, and socio-economic dimensions, while the use of Qur'anic interpretation as an ethical framework for analyzing local ecological degradation remains limited (Alamsyah & Lintang, 2025). The gap addressed in this article lies in the limited integration between empirical data on ecological damage caused by illegal mining and Qur'anic exegesis, particularly Tafsir al-Munir by Wahbah az-Zuhaili.

Based on this gap, this study analyzes the forms of ecological degradation caused by PETI in Jambur Tarutung and examines the concept of *fasād fī al-arḍ* in Tafsir al-Munir as an analytical framework for understanding the local ecological crisis. The study is guided by three research questions: first, what forms of ecological damage are caused by PETI activities in Jambur Tarutung? Second, how does Tafsir al-Munir interpret the concept of *fasād fī al-arḍ*? Third, how can the concept of *fasād* in Tafsir al-Munir be used to understand ecological degradation caused by PETI activities? By integrating field-based evidence with Qur'anic exegesis, this article contributes to the development of contextual ecological tafsir. It argues that Tafsir al-Munir offers an ethical framework for interpreting environmental degradation caused by illegal mining and for understanding ecological responsibility in relation to the Qur'anic concepts of *fasād*, *khalīfah*, balance, and public welfare.

B. Methods

This study employed a qualitative research design using a descriptive-analytical case study approach combined with thematic Qur'anic interpretation (*tafsīr maudhu'ī*). The case study was conducted in Lingkungan III Jambur Tarutung, Pasar Kotanopan Village, Mandailing Natal Regency, North Sumatra, because this area has experienced ecological and social impacts associated with Illegal Gold Mining (PETI). Primary data

were collected through field observations and semi-structured interviews conducted from February to April 2026. Field observations focused on river conditions around mining areas, agricultural land affected by mining activities, abandoned mining pits, and the operation of heavy equipment and suction dredging machines locally known as *dompeng*. The researcher documented these conditions through field notes and visual documentation.

The study involved six informants selected through purposive sampling based on their knowledge, experience, and direct connection with PETI activities. They consisted of two community leaders, including Tagor Indra Mulia and another local community figure; two religious leaders, including H. Parlaungan; and two community members connected to mining-related activities and affected by their social and economic consequences, namely Hendra and Zaki. Secondary data were obtained through a literature review of Tafsir al-Munir by Wahbah az-Zuhaili, ecological tafsir studies, *maqāṣid al-sharī‘ah* literature, and previous academic works on illegal mining, environmental degradation, and Islamic environmental ethics. This combination of empirical and textual data enabled the study to connect local ecological realities with Qur’anic ethical concepts.

Data were analyzed through data reduction, thematic categorization, data presentation, and contextual interpretation. Interview transcripts and field notes were examined to identify recurring themes, including changes in river conditions, agricultural land degradation, abandoned mining pits, socio-economic dependence on mining, and changes in religious and community life. The tafsir analysis was conducted by selecting Qur’anic verses related to environmental degradation and human responsibility, particularly QS. Ar-Rum (30):41, QS. Al-A‘raf (7):56, and QS. Al-Baqarah (2):30; examining Wahbah az-Zuhaili’s interpretation of these verses in Tafsir al-Munir; identifying key concepts such as *fasād fī al-ard*, *khalīfah*, *mīzān*, and *iṣlāḥ*; and relating these concepts to the empirical findings. This study did not conduct laboratory testing of water or soil quality, satellite imagery analysis, hydrological assessment, or technical environmental measurement. Therefore, its ecological findings are based on field observations and informants’ testimonies rather than laboratory-based environmental data.

C. Results and Discussion

1. Results

1) Changes in River Conditions

Field observations showed visible changes in river conditions around the mining area in Lingkungan III Jambur Tarutung. In several locations adjacent to mining operations, the river water appeared more turbid, particularly near areas where suction dredging machines and excavation activities were observed. Residents stated that the river had previously been used for domestic needs and agricultural irrigation, but its condition had changed following the expansion of illegal gold mining activities. One community leader explained:

“Before the mining activities expanded, the river was relatively clear and was used by residents for daily needs and irrigation. Now the water is often muddy, especially after mining activities take place near the river.” (Interview with Tagor Indra Mulia, March 2026)

Field observations also recorded sediment accumulation along several sections of the riverbank near mining sites. Informants expressed concern that these changes had reduced the river’s usability for household and agricultural purposes. Since this study did not conduct laboratory testing of water quality, this finding is limited to visual observation and community testimony regarding changes in river turbidity, sedimentation, and river use.

2) Agricultural Land Degradation and Declining Productivity

The second major finding concerns agricultural land degradation around the mining area. Field observations identified several agricultural plots affected by sediment deposits from mining activities. Some rice fields and plantation areas showed visible changes in soil surface conditions compared with nearby areas that were not directly affected by mining operations. Interviews with local residents indicated that these changes had affected agricultural productivity. One informant stated:

“Many farming areas are no longer as productive as before. Some fields have been covered by sediment, making cultivation more difficult and reducing harvest yields.” (Interview with Hendra, March 2026)

Another informant explained:

“Before mining expanded, most people depended on farming. After the land was affected, many residents started looking for other sources of income.” (Interview with Zaki, March 2026)

These accounts indicate that the ecological effects of PETI are closely connected to the economic vulnerability of local residents. Agricultural land is not only an ecological resource but also a primary source of livelihood. The decline in land productivity therefore contributed to livelihood shifts, including increased community involvement in mining-related activities.

3) Abandoned Mining Pits and Environmental Risks

Field observations also identified abandoned mining pits in several locations surrounding the Batang Gadis River and nearby settlements. These excavation sites contained standing water and showed no visible signs of reclamation or rehabilitation. Their location near river systems and residential areas made them a source of concern for residents, particularly during the rainy season. A community leader stated:

“Many former mining pits have been left open without any restoration. During the rainy season, residents worry that these areas may contribute to flooding or landslides.” (Interview with Tagor Indra Mulia, March 2026)

The presence of unreclaimed mining pits indicates that the environmental impact of PETI does not end when extraction activities stop. The abandoned pits continue to create perceived risks for the surrounding community. However, because this study did

not conduct hydrological or geological assessments, this finding should be understood as a qualitative account of observed environmental conditions and community perceptions of risk.

4) Socio-Economic Dependence on Mining Activities

The interviews revealed that economic factors were the main reason for community involvement in illegal gold mining. Several informants explained that declining agricultural productivity and limited employment opportunities encouraged residents to seek income from mining activities. For some residents, PETI became an immediate economic option despite their awareness of its environmental consequences. One informant explained:

“We understand the environmental consequences, but many people continue mining because there are limited alternatives for earning a living.” (Interview with Hendra, March 2026)

These findings show that PETI in Jambur Tarutung cannot be understood only as an environmental problem. It is also linked to livelihood insecurity, limited economic alternatives, and the weakening of agriculture as a reliable source of income.

5) Changes in Religious and Community Life

The study also found indications of changes in religious and community participation following the expansion of mining activities. Interviews with religious leaders suggested that some residents became less active in congregational prayers, Qur’anic study sessions, and other community religious activities because more time was spent around mining sites. One religious leader explained:

“In the past, more residents attended congregational prayers and Qur’anic study sessions. Since mining activities became more intensive, some people spend more time at mining sites and participate less frequently in religious activities.” (Interview with H. Parlaungan, March 2026)

Several informants also noted that some young people increasingly spent time around mining areas rather than participating in social and religious activities. These findings suggest that PETI has social and religious implications beyond its ecological impacts. The expansion of mining activities has affected not only land and rivers but also patterns of time use, community interaction, and participation in religious life.

The findings above show that the impacts of PETI in Jambur Tarutung are interconnected rather than isolated. Changes in river conditions are related to sedimentation from mining activities; agricultural land degradation is linked to declining livelihood security; abandoned mining pits create continuing environmental concerns; and economic dependence on mining affects patterns of community and religious life. Table 1 summarizes these empirical findings by linking field observations, interview evidence, community impacts, and the methodological limitations of each finding.

Table 1.
Summary of Field Findings on PETI Impacts in Jambur Tarutung

Form of Impact	Field Observation	Supporting Interview Evidence	Impact on Community	Data Limitation
Changes in river conditions	River water appeared more turbid near mining areas, with visible sediment accumulation around several riverbank sections.	Residents reported that the river was previously clearer and more usable for domestic needs and irrigation.	Reduced use of river water for household and agricultural purposes.	No laboratory testing of water quality was conducted.
Agricultural land degradation	Sediment deposits were observed on several agricultural plots near mining activities.	Farmers reported declining productivity and reduced harvest yields.	Reduced agricultural income and livelihood security.	No quantitative measurement of productivity loss was conducted.
Abandoned mining pits	Unreclaimed excavation sites containing standing water were observed near river systems and settlements.	Residents expressed concern about flooding and landslide risks during the rainy season.	Increased community concern over environmental hazards.	No hydrological or geological assessment was conducted.
Socio-economic dependence	Increased community involvement in mining-related activities was reported.	Informants cited declining agricultural income and limited employment alternatives.	Growing dependence on PETI as a source of income.	No household economic survey was conducted.
Religious and community changes	Reduced participation in some community and religious activities was reported by religious leaders.	Religious leaders stated that some residents spent more time at mining sites and less time in religious gatherings.	Shifts in patterns of religious participation and community life.	Findings are based on qualitative interview data.

Source: Compiled by the authors based on field observations and semi-structured interviews, March 2026

As shown in Table 1, the most consistent pattern across the findings is the connection between ecological degradation and livelihood vulnerability. PETI does not only alter physical environmental conditions, such as rivers, agricultural land, and former mining pits, but also reshapes how residents secure income and participate in community life. The table also clarifies the methodological scope of this study: the findings are based on qualitative field observations and informants' testimonies rather than technical environmental measurements. This distinction is important because the article does not claim to provide laboratory-based evidence of pollution, but rather a field-based account of how ecological degradation is observed, experienced, and narrated by the local community.

The results indicate that PETI activities in Jambur Tarutung have produced interconnected ecological, economic, and social consequences. These include changes in river conditions, sedimentation, agricultural land degradation, abandoned mining pits, livelihood shifts, and reduced participation in some religious and community activities. These empirical findings provide the basis for the following discussion, which interprets the ecological and social impacts of PETI through the concept of *fasād fī al-arḍ* in *Tafsir al-Munir*.

2. Discussion

1) *Fasād fī al-Arḍ* in *Tafsir al-Munir*

The concept of *fasād fī al-arḍ* provides a central theological and ethical framework for interpreting the ecological consequences of Illegal Gold Mining (PETI) in Jambur Tarutung. In *Tafsir al-Munir*, Wahbah az-Zuhaili interprets *fasād* as physical destruction and as a broader condition of disorder caused by human actions that violate divine guidance and ethical limits. His interpretation of QS. Ar-Rum (30):41 emphasizes that corruption and destruction on land and sea emerge as consequences of what human beings have done. This verse establishes a causal relationship between human conduct and the disruption of ecological and social order (al-Zuhaylī, 1991c, pp. 118–121).

This interpretation is important because it shifts the understanding of environmental degradation from a purely technical problem toward an ethical and moral issue. Ecological damage is viewed as a manifestation of human failure to exercise restraint, justice, and responsibility in managing natural resources. In this sense, the Qur'anic concept of *fasād* allows environmental degradation to be understood as the result of exploitative actions that disturb the balance established by God. This view is consistent with contemporary ecological *tafsir* studies that understand environmental crises as consequences of unsustainable human intervention in nature instead of isolated natural phenomena (Sohail & Mahmood, 2019).

Wahbah az-Zuhaili's interpretation of QS. Al-A'raf (7):56 further clarifies this point. The verse prohibits human beings from causing corruption on earth after it has been set in order. In *Tafsir al-Munir*, this prohibition refers to any action that disrupts the order, balance, and welfare of life established by God (al-Zuhaylī, 1991b, pp. 418–420). Accordingly, *fasād* extends beyond visible environmental damage. It includes actions that

undermine social welfare, economic justice, moral responsibility, and public benefit. The concept of *iṣlāḥ*, in contrast, refers to restoration, improvement, and the maintenance of balance after disorder has occurred.

Within this framework, *fasād fī al-arḍ* can be understood through four interconnected dimensions. The first is the ecological dimension, which refers to physical damage to land, rivers, vegetation, and other natural systems. The second is the social dimension, which concerns the disruption of public welfare, social cohesion, and community stability. The third is the moral dimension, which reflects the erosion of ethical restraint in the exploitation of natural resources. The fourth is the spiritual dimension, which relates to the weakening of human awareness of accountability before God. These dimensions indicate that environmental degradation, within the Qur'anic framework developed in *Tafsir al-Munir*, encompasses ecological, social, moral, and spiritual aspects simultaneously.

This multidimensional understanding of *fasād* is closely related to the Qur'anic idea of human beings as *khalīfah*. In QS. Al-Baqarah (2):30, human beings are presented as God's vicegerents on earth. Wahbah az-Zuhaili interprets this responsibility as a mandate to manage, preserve, and maintain order on earth instead of exploiting it without limits (al-Zuhaylī, 1991a, pp. 94–95). When natural resources are extracted in ways that damage rivers, weaken agricultural livelihoods, and leave ecological risks for future generations, the responsibility of *khalīfah* remains unfulfilled. From this perspective, *Tafsir al-Munir* provides an ethical foundation that connects environmental preservation with human accountability, public welfare, and social justice.

2) Interpreting PETI Impacts through the Lens of *Fasād fī al-Arḍ*

The findings of this study show that PETI activities in Jambur Tarutung have generated interconnected ecological, economic, and social consequences. These findings correspond with the concept of *fasād fī al-arḍ* in *Tafsir al-Munir* because the observed damage extends beyond the physical environment and affects livelihood security, community life, and religious participation. The concept of *fasād* therefore provides an analytical lens for understanding how illegal mining generates multiple forms of degradation.

The first form of *fasād* is reflected in changes in river conditions. Field observations showed that river water near mining areas appeared more turbid, while sediment accumulation was visible along several riverbank sections. Residents also reported that the river had previously been used for domestic purposes and agricultural irrigation but had become less usable after mining activities expanded. From the perspective of *Tafsir al-Munir*, this condition represents a disruption of ecological balance and public benefit. Rivers function as resources that support domestic life, agricultural activity, and community well-being. When mining activities reduce the usability of rivers, ecological degradation becomes directly connected to the loss of *maṣlahah* for local residents. This finding is consistent with studies showing that illegal

mining often contributes to water quality decline, sedimentation, and reduced access to natural resources for surrounding communities (Hartanto et al., 2024).

The second form of *fasād* appears in agricultural land degradation and declining productivity. The results show that several agricultural plots were affected by sediment deposits from mining activities, while residents reported reduced harvest yields and increasing difficulty in cultivating affected land. Within the framework of *Tafsir al-Munir*, this condition can be understood as *fasād* because it damages a resource that sustains community livelihoods. Agricultural land carries ecological, economic, and social functions. When its productivity declines, the consequences extend to household income, food security, and livelihood stability. This finding confirms that ecological degradation caused by extractive activities often produces long-term socio-economic vulnerability among agrarian communities (Tustinaningsih & Akhmaddhian, 2025).

The third form of *fasād* is visible in abandoned mining pits that have not been reclaimed. Field observations identified unreclaimed excavation sites containing standing water near river systems and settlements. Residents expressed concern that these pits could increase environmental risks, especially during the rainy season. Although this study does not provide hydrological or geological measurements, the presence of abandoned pits demonstrates a failure of ecological responsibility. In relation to QS. Al-Baqarah (2):30, the role of *khalīfah* requires human beings to maintain and restore the earth rather than leave it in a damaged and hazardous condition. The absence of reclamation therefore reflects a failure to practice *islāh* after ecological disturbance has occurred. This finding corresponds with environmental governance studies that identify abandoned mining sites as persistent indicators of unsustainable resource exploitation and weak post-extraction responsibility (Muryani, 2019).

PETI also generates social and moral consequences. The findings show that declining agricultural income and limited employment alternatives have encouraged some residents to depend on mining activities. This condition illustrates the social complexity of *fasād*. PETI contributes to ecological degradation, while some residents rely on it for short-term economic survival. This tension indicates that environmental degradation cannot be addressed solely through moral condemnation or legal prohibition. Consideration of livelihood insecurity and limited economic alternatives is equally necessary. From the perspective of *Tafsir al-Munir*, *fasād* includes destructive behavior as well as social conditions that weaken public welfare and encourage unsustainable practices.

The study also found indications of reduced participation in several religious and community activities as mining activities became more intensive. Religious leaders reported that some residents spent more time around mining sites and participated less frequently in congregational prayers, Qur'anic study sessions, and other community gatherings. This finding strengthens the multidimensional interpretation of *fasād*. Environmental degradation is connected with changes in community rhythms, social interaction, and religious life. In this regard, the findings support ecological *tafsir* scholarship that views environmental crises as interconnected with social and ethical

challenges instead of purely ecological problems (Diningrum et al., 2024; Farida et al., 2025).

The main contribution of this discussion lies in demonstrating how *Tafsir al-Munir* can function as an analytical framework for interpreting empirical ecological realities. Previous ecological *tafsir* studies have frequently focused on normative readings of Qur'anic environmental verses, whereas studies on PETI have generally emphasized legal, economic, and policy dimensions. This study connects these two fields by demonstrating that the concept of *fasād fī al-ard* can be used to interpret local ecological degradation based on field evidence. In Jambur Tarutung, *fasād* appears in turbid rivers, sedimented farmland, unreclaimed mining pits, livelihood insecurity, and changing patterns of community and religious life.

3) Ethical and Social Implications for Addressing PETI

The interpretation of PETI through the framework of *fasād fī al-ard* has several ethical and social implications. First, environmental education in affected Muslim communities should be strengthened through religious and community institutions. The findings show that economic considerations remain a major reason for involvement in PETI, while ecological concerns are often overshadowed by immediate livelihood needs. In this context, religious education should emphasize ecological responsibility as part of the human mandate as *khalīfah* alongside ritual obligations. Protecting rivers, land, and agricultural resources can be framed as part of preserving divine trust and maintaining public welfare. Previous studies similarly suggest that religious values can contribute to pro-environmental behavior and ecological responsibility among Muslim communities (Amanda & Erwanto, 2026; Mahendra & Nugraha, 2025; Nurrahim, 2026).

Second, ecological rehabilitation should be understood as a practical expression of *iṣlāḥ*. The presence of sedimentation, degraded agricultural land, and abandoned mining pits indicates the need for environmental recovery. From the perspective of *Tafsir al-Munir*, restoration represents an ethical obligation to repair damage and restore balance. Reclaiming former mining pits, reducing sedimentation, restoring river functions, and rehabilitating affected agricultural areas are practical forms of *iṣlāḥ* aimed at recovering ecological functions and protecting public welfare. This perspective is supported by environmental rehabilitation studies that emphasize restoration as a long-term strategy for reducing environmental risk and rebuilding ecosystem resilience (Amelia, 2022; Kamar, 2021; Thohir, 2025).

Third, the concept of *fasād* implies the need for stronger environmental governance and law enforcement. PETI persists because of individual economic decisions, weak regulation, inadequate monitoring, and limited accountability. Preventing *fasād* therefore requires collective and institutional responsibility. Law enforcement should function as a mechanism for protecting public welfare, preventing ecological harm, and ensuring that natural resource management does not sacrifice local communities and future generations. This argument is consistent with broader discussions

on environmental governance that emphasize institutional accountability in addressing illegal resource exploitation (Rizvi, 2024; Tarto et al., 2025).

Fourth, environmental protection must be accompanied by sustainable livelihood alternatives. The findings show that many residents are drawn into mining because agriculture has become less reliable and employment opportunities are limited. Consequently, prohibiting PETI without addressing local economic vulnerability may not produce sustainable outcomes. Within the ethical framework of *Tafsir al-Munir*, the prevention of *fasād* must be aligned with the realization of *maṣlaḥah*. Alternative livelihood programs, agricultural revitalization, community-based entrepreneurship, vocational training, and local economic empowerment are needed to reduce dependence on illegal mining. These efforts create opportunities for environmental protection and social welfare to advance simultaneously.

This discussion demonstrates that *Tafsir al-Munir* offers an ethical framework that extends beyond a normative condemnation of environmental destruction. Through the interconnected concepts of *fasād*, *khalīfah*, *iṣlāḥ*, *mīzān*, and *maṣlaḥah*, it provides a basis for understanding and responding to ecological crises through environmental responsibility, social welfare, and moral accountability. In the case of Jambur Tarutung, this framework helps explain why PETI should be understood as a multidimensional form of ecological, social, and ethical disruption.

D. Conclusion

This study finds that Illegal Gold Mining (PETI) in Jambur Tarutung has generated interconnected ecological, economic, and social disruptions. Based on field observations and interviews, the main impacts include changes in river conditions, sedimentation around mining areas, agricultural land degradation, unreclaimed mining pits, livelihood vulnerability, and changes in religious and community participation. These findings indicate that the consequences of PETI are not limited to physical environmental damage but also affect public welfare, livelihood security, and the social rhythm of the local community. Viewed through the lens of *Tafsir al-Munir*, these conditions reflect *fasād fī al-arḍ*, understood as corruption and disorder arising from human actions that disturb ecological balance and undermine public benefit. Wahbah az-Zuhaili's interpretation of QS. Ar-Rum (30):41 and QS. Al-A'raf (7):56 emphasizes that environmental degradation is inseparable from ethical responsibility. In this context, PETI illustrates the failure to uphold the human role as *khalīfah*, who is entrusted with preserving, managing, and restoring the earth.

This article contributes by linking empirical evidence of illegal mining with Qur'anic exegesis. It shows that ecological tafsir can function not only as a normative discourse but also as a contextual analytical framework for understanding local environmental crises. The findings suggest that addressing PETI requires more than legal enforcement. It also requires ecological rehabilitation, religiously grounded environmental awareness, stronger environmental governance, and sustainable livelihood alternatives for affected communities. As a qualitative case study, this research is limited

to field observations and interview data. It does not include laboratory testing of water or soil quality, satellite imagery analysis, hydrological assessment, geological measurement, or household economic survey data. Future studies should integrate ecological tafsir with environmental science, public policy, and socio-economic analysis to provide a more comprehensive assessment of illegal mining and its ecological, social, and ethical consequences.

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