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Legal Accountability of Small-Scale Miners for Environmental Damage

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Abstract. Small-scale mining activities in Indonesia have been increasing as a form of natural resource utilization by local communities. However, these practices are often carried out without official permits and without regard for environmental protection principles, resulting in significant environmental damage such as water and soil pollution and ecosystem destruction. This study aims to examine the legal accountability that can be imposed on small-scale miners for the environmental damage caused. The research method used is normative juridical with legislative and conceptual approaches. The results indicate that small-scale miners can be held accountable in three forms of legal responsibility: criminal, civil, and administrative. Criminal liability is regulated under Articles 98–103 of Law Number 32 Year 2009 concerning Environmental Protection and Management (UU PPLH), while civil liability in the form of compensation for environmental damage is regulated in Article 87 of the same law. Additionally, administrative sanctions such as license revocation or fines are regulated in Articles 76–80 UU PPLH. Enforcement obstacles arise due to weak supervision, lack of legal mining activity permits, and low legal awareness among the community. Therefore, policy reform is necessary to strengthen supervision, facilitate official permit issuance (IPR), and improve education and guidance for the community. The state also needs to actively regulate and foster small-scale mining to align with sustainable development principles. With a comprehensive approach, small-scale mining can proceed in harmony with environmental protection.

Keywords: Small-Scale Mining, Environmental Damage, Legal Accountability, Environmental Law, Small-Scale Mining Permits.

INTRODUCTION

The phenomenon of increasing small-scale mining activities in Indonesia over the past decades cannot be separated from the socioeconomic conditions of communities around resource-rich areas (Rahayu, 2021). When formal economic opportunities are limited, local communities utilize the mining potential available in their regions as their primary livelihood (Rahim, 2024). Small-scale mining activities are often seen as a solution to poverty and limited access to decent jobs (Paransi, 2024). However, behind its economic potential, small-scale

mining carries various serious problems, especially concerning the environment. Without structured management, these activities risk causing deep ecological damage with long-term impacts (Idrus, 2021).

Environmental damage caused by small-scale mining is often massive and uncontrolled. Deforestation, water pollution due to the use of mercury and cyanide, and land degradation are real impacts appearing in many regions, from Kalimantan to Sulawesi (Nasution, 2021). These activities are carried out manually and openly without adequate technical standards or environmental protection procedures. Natural resources exploited are often permanently damaged because reclamation processes are not conducted after mining activities end (Ramadhani, 2023). The damaged environment due to small-scale mining also threatens the lives of surrounding communities, affecting health, agriculture, and access to clean water (Fauzi, 2024).

In many cases, small-scale mining is conducted without official permits issued by the government. This practice is known as illegal mining, which often escapes supervision because it is sporadic and scattered across remote areas (Ranggalawe, 2023). The absence of enforced regulations makes these activities almost untouched by law and is even considered part of the local socioeconomic life. Both regional and central governments have the responsibility to supervise and regulate mining activities; however, in reality, such supervision is often weak, limited, and inconsistent. As a result, the environmental damage continues without effective control mechanisms (Cadizza, 2024).

Small-scale mining (pertambangan rakyat) actually has a fairly clear legal basis within the national legal system. According to Article 1 point 10 of Law Number 3 of 2020 concerning amendments to Law Number 4 of 2009 on Mineral and Coal Mining (Minerba Law), small-scale mining is defined as mining business activities carried out independently by local communities within designated small-scale mining areas using simple tools and limited capital (Darongke, 2022). This definition indicates that the state recognizes the existence of small-scale mining as a legitimate part of the mining sector. However, this recognition applies only if the activities are conducted in accordance with legal provisions, including permits and designated locations (Adrian Sutedi, 2022).

The characteristics of small-scale mining reflect a small-scale economic activity based on community involvement. These activities are generally carried out in groups by villagers or local communities living near mining sites (Rahayu D. P., 2021). The technology used is traditional, such as manual excavation or the use of simple machinery without occupational safety protections. The capital used comes from the individuals or groups themselves, not from large investors (Murati, 2023). Although it appears as a form of grassroots economy, these characteristics make small-scale mining vulnerable to environmentally unfriendly practices due to limited technical capacity and low legal awareness among the actors.

Legally, small-scale mining is regulated through the Small-Scale Mining Area mechanism (Wilayah Pertambangan Rakyat or WPR), as stipulated in Articles 22 and 23 of the Minerba Law (Palias, 2023). WPR refers to specific areas designated by the government for small-scale mining business activities. Within these areas, communities can apply for official permits called Small-Scale Mining Permits (Izin Pertambangan Rakyat or IPR) to legally authorize their activities (Sunandar, 2024). This provision aims to prevent uncontrolled mining activities and ensure they can be regulated and supervised by the government through the legal system. However, in practice, many small-scale mining activities are carried out outside WPR and without IPR, which legally categorizes them as illegal (Irwan, 2022).

The lack of enforcement of legal provisions regarding the Small-Scale Mining Area (WPR) and Small-Scale Mining Permit (IPR) indicates a gap between regulations and their implementation on the ground. Many local governments have yet to designate WPRs due to administrative reasons, political factors, or the local community's lack of awareness about legal

procedures. When WPR is not available, communities continue mining activities due to economic pressure, even without legal permits (Asnawi, 2023). This situation creates conditions where small-scale mining occurs extensively outside the applicable legal system, which ultimately results in uncontrolled environmental damage (Aditya, 2024). The absence of legal permits also makes it difficult for the government to effectively take action or guide the miners.

The environmental impact of small-scale mining is very real and has been documented in various studies in mining regions. For example, in Kalimantan, small-scale gold mining has caused river water pollution due to the use of mercury (Ananda, 2022). In Sulawesi, small-scale nickel mining activities have damaged protected forests and caused landslides (Jufri, 2024). Without proper management and rehabilitation, these damages have the potential to become permanent. This condition shows that small-scale mining is not only an economic issue but also an ecological problem that threatens the environmental carrying capacity for future generations.

The principle of sustainable development as stated in Article 2 of Law Number 32 of 2009 concerning Environmental Protection and Management (UU PPLH) should be the main foundation in small-scale mining activities. According to this principle, economic activities must be carried out while considering the preservation of environmental functions. The reality on the ground shows a large gap between principle and practice. Mining communities generally lack access to information, training, or environmentally friendly technology. This situation creates an exploitative mining pattern without regard to its impact on the ecosystem.

The urgency of legal accountability for small-scale mining actors is increasing along with the escalation of environmental damage occurring. Although small-scale mining is carried out due to economic necessity, this cannot justify actions that harm the environment. Environmental law in Indonesia has provided a strong legal basis to take action against environmental destruction, whether committed by large corporations or individuals and community groups. Therefore, it is important to promote the fair and proportional enforcement of the law, including against small-scale miners who are proven to violate environmental protection regulations. A humane and educational legal approach remains necessary so that law enforcement efforts run in parallel with community empowerment.

METHOD

This research uses a normative juridical method focusing on the study of positive legal norms regulating the accountability of small-scale mining actors for environmental damage. This approach emphasizes the analysis of relevant legislation, such as Law Number 32 of 2009 concerning Environmental Protection and Management, Law Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 on Mineral and Coal Mining, as well as implementing regulations such as Government Regulation Number 22 of 2021 and various related ministerial regulations. The primary data sources come from primary legal materials, namely legislation, and secondary legal materials such as scientific literature, legal journals, articles, and court decisions related to disputes over small-scale mining and environmental damage. Data collection techniques were conducted through literature study by tracing legal documents, literature analysis, and normative interpretation of applicable provisions. Data analysis was carried out qualitatively with a systematic approach to examine how the concept of legal accountability can be applied in the context of small-scale mining, as well as to assess structural and substantive obstacles in its implementation. This study does not involve interviews or field studies, so the results are theoretical and aim to provide a legal construct that can be a basis for strengthening regulations and environmental law enforcement policies in the future.

RESULT AND DISCUSSION

Legal Framework on Environment and Mining

Principles in environmental law serve as normative foundations for regulating the interaction between humans and the environment, including in the mining sector. One of the main principles is the precautionary principle, which requires every person or legal entity to avoid activities that potentially cause negative environmental impacts, even if there is no scientific certainty. In the context of small-scale mining, this principle should guide actors not to exploit natural resources recklessly, especially without technical knowledge. When environmental damage occurs due to negligence or ignorance of the mining actors, this principle emphasizes the importance of preventive measures and planning from the outset. The absence of understanding of this principle among small-scale miners is one of the main causes of systematic environmental damage.

The polluter pays principle is another foundation in environmental law that stresses every party polluting the environment must bear the costs of the resulting damage. This principle does not differentiate actors based on the scale of their business, so small-scale mining is not exempted. In practice, this principle encourages financial responsibility for restoring environments damaged by mining activities. The implementation of this principle in Indonesia is reinforced in Article 87 of Law Number 32 of 2009, which states that polluters must carry out restoration and pay compensation. However, in reality, small-scale miners often lack the economic capacity to fulfill these obligations, making enforcement a particular challenge for law enforcement authorities.

The principle of state responsibility is also an important part of environmental law in Indonesia. The state's role is not only as a regulator but also as responsible for ensuring the sustainability of the environment for its citizens. This role includes supervision, guidance, as well as providing information and technical facilities for mining actors, including local communities. The state is also obligated to establish policies that encourage the sustainable use of natural resources without damaging the environment. When the state fails to carry out its supervisory function, environmental violations tend to spread and become difficult to control.

The legislation in Indonesia provides a relatively comprehensive legal framework for regulating environmental protection and mining activities. Law Number 32 of 2009 on Environmental Protection and Management (UU PPLH) serves as the main legal umbrella for environmental management, covering norms, principles, and law enforcement mechanisms. This law strictly regulates prohibitions on pollution, damage, and exploitation of the environment without permits, and contains administrative and criminal instruments. In the context of small-scale mining, the provisions in UU PPLH should serve as the legal basis for assessing the responsibility of actors towards the environment. This regulation does not differentiate based on business scale, so it also applies to small-scale mining activities that damage the environment.

In the mining sector, Law Number 3 of 2020 on Mineral and Coal Mining (UU Minerba) includes specific provisions related to small-scale mining. This law regulates that small-scale mining can only be conducted within designated small-scale mining areas (Wilayah Pertambangan Rakyat, WPR) and must have a small-scale mining permit (Izin Pertambangan Rakyat, IPR). The regulation emphasizes the importance of legality in conducting mining activities, including administrative and technical requirements that must be fulfilled. Furthermore, articles in UU Minerba also require miners to carry out reclamation and environmental recovery after mining activities. Thus, UU Minerba serves as a technical and substantive legal instrument in establishing a responsible mining system.

Government Regulation Number 22 of 2021 on the Implementation of Environmental Protection and Management serves as a derivative regulation of the Environmental Protection and Management Act (UU PPLH) and acts as a technical guideline for the implementation of

environmental obligations by business actors. Under this regulation, any activity that impacts the environment is required to have environmental documents, such as an Environmental Impact Analysis or *Analisis Mengenai Dampak Lingkungan* (AMDAL) or Environmental Management and Monitoring Efforts (UKL-UPL). Even though small-scale mining activities are limited in scale, if they potentially cause significant impacts, the obligation to prepare environmental documents still applies. These requirements serve as important instruments to assess the compatibility between mining activities and the environmental carrying capacity. Unfortunately, small-scale mining actors generally do not know or understand these obligations.

Additionally, the Minister of Energy and Mineral Resources Regulation Number 7 of 2020 provides technical guidelines on the procedures for granting areas, permits, and reporting in mining activities. This regulation establishes the procedures that communities must follow to obtain official permits to carry out small-scale mining. This regulation is important because, through the permitting process, the government can control the location, production volume, and implementation of environmental standards. It also opens up opportunities for communities to gain legality in a more structured manner, thereby reducing the potential for environmental damage. Implementing this regulation requires an active role from local governments to socialize and facilitate the process for local communities.

Small-scale mining actors have legal obligations toward environmental protection, as regulated in various existing regulations. One main obligation is the preparation of environmental documents, adjusted according to the type and scale of activity. If the activity poses significant environmental risks, preparing an AMDAL becomes an obligatory, non-negotiable requirement. However, for activities with lighter impacts, preparing a UKL-UPL is sufficient. This obligation aims to ensure that every stage of mining activities considers environmental protection and management aspects in a planned manner.

In Law No. 2 of 2025 Article 100, there is a provision that explicitly requires mining actors to carry out reclamation and post-mining activities. This obligation is absolute, both for large-scale mining and community mining that has obtained a permit. Reclamation aims to restore the function of the land after mining activities have ended, such as reforestation or recontouring of the land. Unfortunately, in the practice of community mining, this obligation is often not carried out due to limited resources and technical knowledge. The absence of reclamation causes former mining sites to become open pits that endanger safety and damage spatial planning.

With the various legal provisions that have been described, it appears that Indonesia's legal framework has actually provided adequate instruments to regulate and supervise community mining activities so that they remain within the corridor of environmental sustainability. The principles of environmental law, legislation, as well as administrative and technical obligations attached to mining actors, indicate that legal accountability is not only the responsibility of individuals but also a system that must run synergistically between the state and society. However, implementation in the field still faces various challenges, ranging from weak law enforcement, limited socialization, to gaps in the technical capacity of community mining actors. Therefore, the success of legal regulation of community mining depends heavily on consistent implementation of regulations, strengthening supervision, and increasing legal and environmental literacy among the mining community. Integration between mining policy and environmental protection needs to continue to be encouraged so that ecological damage can be prevented, while still opening economic space for society in a legal and sustainable manner.

Legal Accountability of Community Mining Actors for Environmental Damage

Legal accountability of community mining actors for environmental damage has a complex dimension, covering criminal, civil, and administrative aspects. In the criminal context, Law Number 32 of 2009 concerning Environmental Protection and Management (UU PPLH) has regulated strict provisions through Articles 98 to 103, which state that anyone who causes pollution or environmental damage may be subject to imprisonment and fines. These provisions do not exempt community mining actors, even though they are often considered small economic actors. Environmental crimes are regarded as formal offenses, where proof of the act itself is sufficient without needing to prove direct consequences, making criminal liability an effective legal tool in a preventive context. However, criminal enforcement in community mining cases often faces social dilemmas because many actors are local residents who depend on these activities for their livelihood.

Civil liability in the context of environmental protection refers to Article 87 of the UU PPLH, which states that perpetrators of environmental damage are obliged to pay compensation and carry out environmental restoration. This instrument gives the community or government the right to sue the perpetrators civilly, especially if the damage impacts the right to a good and healthy environment. Civil lawsuits can be filed by individuals, community groups, or environmental organizations, as emphasized in the legal standing provisions in Article 92 of the UU PPLH. In practice, the civil route has the advantage of providing direct compensation to affected parties. However, this mechanism requires technical support in the form of scientific evidence and data on environmental damage, which is often difficult to obtain, especially in the context of dispersed and poorly documented community mining.

Besides criminal and civil aspects, the administrative aspect also becomes an important part of the legal accountability for community mining actors. Articles 76 to 80 of the UU PPLH grant authority to the competent agencies to impose administrative sanctions in the form of written warnings, suspension of permits, revocation of permits, and administrative fines. The administrative approach is often considered more flexible and faster compared to criminal or civil processes. Unfortunately, most community mining activities occur without official permits or outside the designated areas, making the permit revocation mechanism ineffective. This shows that the enforcement of administrative law requires improvement starting from the legality aspect of the community mining activities themselves.

Law enforcement in community mining cases faces major obstacles in identifying the actors. Mining activities are often carried out communally or in groups without formal structure, making it difficult to establish individual responsibility. When environmental damage occurs, law enforcement officials struggle to identify who is legally responsible. Many mining activities are also conducted in a mobile manner, taking advantage of lax supervision and weak coordination among agencies. These obstacles are worsened by the low institutional capacity at the regional level to conduct regular and comprehensive monitoring. The absence of a valid database of community mining actors increases the potential for oversight leakage.

Another problem arises from the mismatch between the permits owned by mining actors and the locations or mining methods they use. Many community miners only have permits for small areas but in reality mine outside the designated areas, even in protected or conservation zones. This shows the weakness of the verification system and post-permit supervision. These illegal activities worsen environmental damage because they are not accompanied by the environmental obligations regulated in the permits. This mismatch also weakens the government's position when attempting to take legal action, as actors often claim to be official miners despite violating territorial boundaries.

The role of local governments becomes very crucial in law enforcement against community mining activities. Weak supervision by local governments is often seen as tacit approval, which impacts the increase in illegal mining practices. Limitations in budget, human

resources, and technical capacity are often cited as reasons for the inability to conduct effective supervision. Meanwhile, the decentralization of natural resource management places the responsibility for supervision in the hands of regional authorities, which is not always matched by institutional readiness. This weak supervision creates a gray area exploited by mining actors to avoid legal accountability continuously.

In some cases, law enforcement against community mining has been carried out, albeit with great challenges. For example, in some areas of Kalimantan and Sulawesi, law enforcement officers along with the Environmental and Forestry Ministry's Law Enforcement Unit (Gakkum KLHK) and the Energy and Mineral Resources Agency (ESDM) have conducted raids against illegal community mining activities. These cases show that when there is good coordination between agencies, law enforcement can still be implemented despite social pressure from the community. However, these efforts remain sporadic and have yet to form a consistent pattern of law enforcement. The success of law enforcement depends greatly on political commitment, the courage of officers, and technical support from central government agencies.

Policy reform steps are important to bridge the community's livelihood needs and environmental protection. Strengthening the governance of community mining areas must start with the legal, transparent, and participatory determination of the mining zones. Community Mining Areas (WPR) must be determined by considering environmental carrying capacity and the sustainable potential of mineral resources. Without firm zoning regulations, community mining activities will continue to occur illegally and be difficult to monitor. This reform also includes data updating and integration of licensing information systems among agencies to enhance supervision effectiveness.

Education and training on the environment as well as environmentally friendly mining technology need to be part of a long-term strategy. This education not only raises awareness among mining actors but also provides them with tools and knowledge to conduct their business legally and responsibly. These programs can be implemented by the government in cooperation with educational institutions, NGOs, or large mining companies as part of their social responsibility. Simple technologies that reduce pollution, waste management systems, and reclamation techniques can be directly taught to the community. Proper education will reduce the gaps in legal violations because the community understands their limits and responsibilities toward the environment.

The state has an important role in empowering community miners, as regulated in Articles 24 and 25 of the Mineral and Coal Mining Law (UU Minerba). Empowerment is not only about access to areas and permits but also about technical support, capital, and sustainable coaching. With structured assistance, the community can conduct mining legally, efficiently, and in an environmentally friendly manner. The state's failure to carry out this role will only reinforce the gap between regulations and reality on the ground. Political commitment and alignment with the welfare of the community as well as environmental sustainability are absolute requirements to build a legally responsible community mining sector.

CONCLUSION

Although small-scale mining is often positioned as a community-based economic activity, it still holds significant potential for environmental damage if not strictly regulated and supervised. The legal framework available in Indonesia, such as the Environmental Protection and Management Law (UU PPLH) and the Mineral and Coal Mining Law (UU Minerba) along with their derivative regulations, provides a normative basis to ensure that every mining activity, including small-scale mining, must comply with principles of environmental protection and sustainability. In practice, the types of legal accountability that can be applied include criminal, civil, and administrative liabilities, each with its own

mechanisms and objectives. However, the effectiveness of applying such accountability still faces various challenges, ranging from the lack of legality in mining activities, weak supervision by local governments, to limited legal and technological capacities of the mining communities themselves. This situation highlights the need for comprehensive reform, not only in regulations but also in the approaches and paradigms of environmental law enforcement.

The analysis presented shows that solutions to these problems cannot rely solely on repressive approaches but must be accompanied by systematic empowerment and education of mining communities. The state has an obligation to bridge the community's need for a decent livelihood with the protection of the environment as the constitutional right of every citizen. The establishment of clear small-scale mining areas, strengthening local institutional capacity, and integrating environmentally friendly technologies into small-scale mining practices are concrete steps that must be realized immediately. Consistent, transparent, and fair law enforcement will restore public trust in the state's commitment to environmental protection, while simultaneously providing a legal space for local communities to actively participate in economic activities responsibly. Thus, small-scale mining can become a form of resource sovereignty that does not contradict the principles of environmental sustainability.

REFERENCES

Aditya, M. (2024). PERTANGGUNGJAWABAN PIDANA PENYALAHGUNAAN IUP (IZIN USAHA PERTAMBANGAN) YANG BERIMPLIKASI TERHADAP KERUSAKAN HUTAN. *Jurnal Studi Multidisipliner, 8(7)*.

Adrian Sutedi, S. H. (2022). *Hukum pertambangan.* Jakarta: Sinar Grafika.

Ananda, Y. (2022). Kerusakan lingkungan akibat kegiatan penambangan emas ilegal di Kabupaten Murung Raya,(KALTENG). *Jurnal Masalah Lingkungan, 1(1)*.

Asnawi, E. &. (2023). PELAKSANAAN PEMBERIAN IZIN PERTAMBANGAN RAKYAT (IPR). *SeNaSPU: Seminar Nasional Sekolah Pascasarjana, 1(1)*, 267-277.

Cadizza, R. &. (2024). Dampak Pertambangan Ilegal Terhadap Kerusakan Lingkungan di Indonesia. *UNMUHA LAW JOURNAL, 1(2)*, 83-90.

Darongke, F. R. (2022). Efektivitas Undang-Undang Nomor 3 Tahun 2020 dalam pemberian izin usaha pertambangan mineral di Indonesia. *Lex Privatum, 10(3)*.

Fauzi, R. M. (2024). Masalah Konflik Pertambangan Di Indonesia Mining Conflict Issues in Indonesia. *Jurnal Kolaborasi Resolusi Konflik, 6(1)*, 34-41.

Idrus, A. &. (2021). Sosialisasi Pengendalian Kerusakan Lahan Akibat Pertambangan Rakyat Di Kabupaten Bantul, Provinsi Daerah Istimewa Yogyakarta. *Jurnal ABDI: Media Pengabdian Kepada Masyarakat, 7(1)*, 12-17.

Irwan, I. (2022). Perizinan Pertambangan Emas Di Kabupaten Pohuwato. *Journal of Lex Theory (JLT), 3(1)*, 33-45.

Jufri, N. N. (2024). Penegakan Hukum Terhadap Penambangan Secara Ilegal Tanpa Izin Dalam Kawasan Hutan Lindung. *Legal Advice Journal Of Law, 1(1)*, 9-26

Murati, F. K. (2023). IMPLEMENTASI KEBIJAKAN PENGELOLAAN USAHA PERTAMBANGAN RAKYAT: THE POLICY IMPLEMENTATION IN PEOPLE'S MINING MANAGEMENT. *JURNAL TEKNIK PERTAMBANGAN, 23(2)*, 53-56.

Nasution, L. A. (2021). Kajian kerusakan lingkungan pada tambang intan berbasis pertambangan rakyat di Kecamatan Cempaka, Kalimantan Selatan. *Majalah Geografi Indonesia, 35(2)*, 95-103.

Palias, G. R. (2023). Implikasi Yuridis Kewenangan Perizinan dalam Undang-Undang Nomor 3 Tahun 2020 Tentang Perubahan Atas Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral dan Batubara. *Innovative: Journal Of Social Science Research, 3(6)*, 448-464.

Paransi, M. E. (2024). Tinjauan Yuridis Pendelegasian Wewenang Dalam Pembentukan Wilayah Pertambangan Rakyat. *Lex Administratum, 12(2)*.

Rahayu, D. P. (2021). Eksistensi pertambangan rakyat pasca pemberlakuan perubahan undang-undang tentang pertambangan mineral dan Batubara. *Jurnal Pembangunan Hukum Indonesia, 3(3)*, 337-353.

Rahayu, D. P. (2021). NEGARA: ANTARA PENGUSAHA TAMBANG DAN TAMBANG RAKYAT. *Jurnal Yudisial, 14(2)*, 185-207.

Rahim, A. H. (2024). *Pembangunan Ekonomi Biru di Indonesia.* Pekalongan: Penerbit NEM.

Ramadhani, K. A. (2023). *Aspek hukum pertambangan dan pengelolaan lingkungan hidup.* Bekasi: PT Dewangga Energi Internasional.

Ranggalawe, G. N. (2023). Dilema Penegakan Hukum Penyelesaian Pertambangan Tanpa Izin. *Marwah Hukum, 1(1)*, 29-40.

Sunandar, P. S. (2024). WILAYAH PERTAMBANGAN RAKYAT DAN IZIN PERTAMBANGAN RAKYAT. *JURNAL SANGKAREANG MATARAM, 11(1)*, 39-42.