

Artisanal Gold Mine Management Based on Ecological Justice in the Peulumat Mountains, South Aceh

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Abstract

Aceh represents one of the autonomous regions situated on the western frontier of Sumatra Island within the unitary structure of the Republic of Indonesia. Despite the abundance of natural resources in Aceh, a substantial portion still needs to be adequately managed systematically and in a contemporary manner. Among these resources are artisanal gold mines, where extraction processes rely on manual labor and limited tools. One such mining site is located in the Peulumat Mountains. The operation of this mine suffers from a dearth of technical expertise, primarily managed manually by the local community. However, the utilization of these natural resources should not be managed by entities that neglect ecological justice, which is crucial for fostering the

sustainability of nature itself. This research investigates how laborers at the artisanal gold mine in Mount Peulumat navigate their operations to achieve ecological justice. This qualitative research employed a socio-legal approach and was conducted in the rural community of Gampong Gunong Rotan. This study finds a patron-client relationship in the management and allocation of mining proceeds. Two pivotal elements influencing the realization of ecological justice within the mining locale emerged: natural phenomena and a belief in divine principles. Locals perceive certain natural occurrences, such as the flooding of the mining wells, as an indication to cease gold extraction promptly. Furthermore, a prevailing belief dictates that extracted gold should not be solely for personal gain but shared with those in need, reflecting a commitment to divine values.

KEYWORDS *Gold Mining, Artisanal, Ecological Justice*

Introduction

Gampong is an administrative area in which its government directly interacts with the community (street-level bureaucrats)¹. It is hierarchically the lowest government level, as well as the oldest and original legal institution and the community's identity.² Gampong is a terminology that refers to a village.³ It differentiates the word village in Aceh from other regions following Aceh's Special Privilege Law. Therefore, the term village government in Aceh is

¹ Mansyur Achmad KM, *Manajemen Dan Tata Kelola Pemerintahan Desa Perspektif Regulator Dan Aplikatif* (Jakarta: PT Balai Pustaka, 2018).

² Admin, "Perbedaan Desa Dan Kelurahan," accessed June 8, 2023, <https://www.danginpurikaja.denpasarkota.go.id/artikel/perbedaan-desadan-kelurahan>.

³ Nurdin Yunus, "Peran Sekretaris Desa (Gampong) Dalam Meningkatkan Pelayanan Publik Administrasi Pemerintahan Di Gampong Payaroh, Kecamatan Darul Imarah Aceh Besar," *JURNAL TRANSFORMASI ADMINISTRASI* 11, no. 1 (2021).

gampong government⁴. It differs from the term village head in Aceh, which can be referred to as *geuchik*⁵, *datok*⁶, or *reje*.

The *gampong* government is given the authority to manage the *gampong* and realize its self-sufficiency in the global era. Efforts that the *gampong* government can make to implement this authority include using natural resources and establishing *gampong*-owned business enterprises. *Gampong*-owned business enterprises are village businesses established by the village government whose capital ownership and management are carried out by the village government and the community⁷.

Central government regulations in the hierarchy of Village Ministerial Regulations regulate policies regarding village-owned enterprises. The objectives of establishing village-owned enterprises based on the Village Ministerial Regulations include: a) improving the village economy; b) optimizing village assets to improve village welfare; c) increasing community efforts in managing the village's economic potential; d) developing business cooperation plans between villages or with third parties; e) creating opportunities and market networks that support citizens' public service needs; f) opening employment opportunities; g) increasing community welfare by improving public services, as well as growth and equitable distribution of the village economy; and h) increasing village community income and village own-source revenue⁸.

Based on the principles of government administration, this policy has a good purpose, namely economic equality down to village communities. Suppose the village government does not respond well to the objectives of the

⁴ Delfi Suganda, "Fungsi Strategis Tuha Peut Dalam Melakukan Pengawasan Dan Pencegahan Korupsi Dana Gampong," *Al-Idarah: Jurnal Manajemen Dan Administrasi Islam* 2, no. 1 (2018), <https://doi.org/10.22373/al-idarah.v2i1.3393>.

⁵ Mufdar Alianur and Aidil Syah Putra, "Peran Imum Mukim Dalam Pembangunan Pemerintahan Gampong Di Aceh," *RESAM Jurnal Hukum* 6, no. 2 (2020), <https://doi.org/https://doi.org/10.32661/resam.v6i2.45>.

⁶ Muhammad Sofyan, "Kanwil Kementerian Agama Provinsi Aceh," accessed June 8, 2023, <https://aceh.kemenag.go.id/berita/162557/kakankemenag-tamiang-beraudiensi-ke-kantor-bupati>.

⁷ Coristya Berlian Ramadana, Heru Ribawanto, and Suwondo, "Keberadaan Badan Usaha Milik Desa (Bumdes) Sebagai Penguatan Ekonomi Desa (Studi Di Desa Landungsari, Kecamatan Dau, Kabupaten Malang)," *Jurnal Administrasi Publik (JAP)* 1, no. 6 (2010).

⁸ Kementerian Desa Pembangunan Daerah Tertinggal Dan Transmigrasi Republik Indonesia, "Peraturan Menteri Desa, Pembangunan Daerah Tertinggal, Dan Transmigrasi Republik Indonesia Nomor 4 Tahun 2015 Tentang Pendirian, Pengurusan Dan Pengelolaan, Dan Pembubaran Badan Usaha Milik Desa" (2015).

central government. In that case, there is potential for abuse of authority and misinterpreting various aspects of village-owned enterprises. The involvement of the village government in protecting the environment is part of community governance, including maintaining environmental safety.⁹

Aceh, as a province, has been granted special authority regulated by laws¹⁰, that encompass various aspects, including Islamic Sharia¹¹. The ulama play a significant role as the patrons of Islamic Sharia¹², along with Privileged Institutions,¹³ and the Wali Nanggroe Institution,¹⁴ Additionally, the implementation of governance in Aceh incorporates Islamic Sharia nuances, encompassing elements that affect the lives of the people, such as environmental and animal protection,¹⁵ as well as regional financial management in Aceh¹⁶. The values of Islamic law almost entirely govern the elements of government

⁹ Akhyar et al., "Freies Ermessen in the Delegation of Authority From District Government To Village Government," *Jurnal Ilmiah Peuradeun* 11, no. 2 (2023): 625, <https://doi.org/10.26811/peuradeun.v11i2.851>. lihat juga Muhammad Hasyem et al., "Implementation of Distribution and Determination Of Village Funds (Case Study in Syamtalira Bayu, Aceh Utara Regency)," *Jurnal Ilmiah Peuradeun* 10, no. 2 (2022): 537–39, <https://doi.org/10.26811/peuradeun.v10i2.738>.

¹⁰ Republik Indonesia, "Undang-Undang Republik Indonesia Nomor 11 Tahun 2006 Tentang Pemerintahan Aceh," 2006.

¹¹ Delfi Suganda and Nawira Dahlan, "Ikhtilath Dalam Dunia Hiburan," *LEGITIMASI: Jurnal Hukum Pidana Dan Politik Hukum* 7, no. 2 (2018), <https://doi.org/10.22373/legitimasi.v7i2.3972>.

¹² Danil Akbar Taqwadin, "Dinamika Elit Lokal Di Aceh Terhadap Penguasa," *Al-Ijtima'i: International Journal of Government and Social Science* 5, no. 2 (2020): 220, <https://doi.org/10.22373/jai.v5i2.552>.

¹³ Retno Saraswati, Nabitus Sa'adah, and Delfi Suganda, "Status and Function of Social Institutions in Law on Governing Aceh," *Baltic Journal of Law & Politics* 15, no. 7 (2022), <https://doi.org/10.2478/bjlp-2022-007030>.

¹⁴ Delfi Suganda, Retno Saraswati, and Nabitus Sa'adah, "Politics of Law in Qanun Reformulation in Aceh: The Establishment of Wali Nanggroe Institution," *Mazahib* 20, no. 2 (2021), <https://doi.org/http://doi.org/10.21093/mj.v20i2.3387>.

¹⁵ Delfi Suganda, Retno Saraswati, and Nabitus Sa'adah, "Initiated a Policy Direction for the Qanun on the Principles of Islamic Law Which Contains the Protection of Endangered Animals in Order to Realize Its Sustainability in Aceh, Indonesia," *Annals of the Romanian* 25, no. 4 (2021), <https://www.annalsofrscb.ro/index.php/journal/article/view/3147>.

¹⁶ Delfi Suganda and Teguh Murtazam, "The Value Of Local Wisdom in The Contextualization of Budgeting in Aceh," *Lambung Mangkurat Law Journal* 4, no. 1 (2019), <https://doi.org/https://doi.org/10.32801/lamlaj.v4i1.85>.

management. Moreover, Muslim communities are beginning to focus on the values of environmental sustainability.¹⁷

The management of gampong-owned enterprises and the implementation of Islamic law are two separate issues; therefore, this article does not interfere with the authority of the gampong government in either area. This article discusses the efforts of gampong-owned enterprises in realizing ecological justice by utilizing non-timber natural resources, namely gold minerals, which the enterprises manage. It also discusses workers' dependence on investors (patron-client relationship) and preferable administrative flows that enable gampong-owned businesses to manage gold mines in their administrative areas.

The presence of gampong-owned enterprises has been widely discussed by domestic authors. Foreign authors have also discussed a similar topic, with gampong-owned enterprises expressed as village-owned enterprises. In Thailand, village-owned enterprises are mainly used for agricultural empowerment with a budget sourced from village funds.¹⁸ Utilizing village-owned enterprises is an excellent opportunity to maintain the economy of rural communities.

Gampong Gunong Rotan is located in *Kemukiman* Peulumat, which is part of the administrative area of East Labuhan Haji District. East Labuhan Haji District consists of two *kemukiman*. Due to the geographical location of the two *kemukiman* in East Labuhan Haji District, the community mainly occupies residential areas close to the mountainous areas, one of which is Gampong Gunong Rotan.

The authors conducted initial observations before the research regarding the geographical location of Gampong Gunong Rotan at the foot of the Peulumat mountains. Based on observations at the research location, there were sacks of gold-processing waste neatly arranged in the yards of houses and at the foothill. Similar scenes were observed in the *Kemukiman* Peulumat area, including in the Gampong Gunong Rotan administrative area. According to the Secretary of Gampong Gunong Rotan, the sacks in front of the houses or

¹⁷ Zawawi et al., "Waqf and Sustainable Development Law: Models of Waqf Institutions in the Kingdom of Saudi Arabia and Indonesia," *Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan* 23, no. 1 (2023): 96, <https://doi.org/10.18326/IJTIHAD.V23I1.93-114>. lebih lanjut mengenai islam mengatur lingkungan baca: Muhaemin Latif et al., "Environmental Theology and Its Relevance to Islamic Law: Perception of Makassar Muslim Scholars, Indonesia," *Samarah: Jurnal Hukum Keluarga Dan Hukum Islam* 7, no. 3 (2020): 1734–56, <https://doi.org/http://dx.doi.org/10.22373/sjhk.v7i3.18905>.

¹⁸ Jirawan Boonperm et al., "Appraising the Thailand Village Fund," *Policy Research Working Paper, The World Bank* 5998, no. March (2012), <http://econ.worldbank.org>.

fields are gold waste the Gelendong owner no longer manages. This explanation shows that the administrative area of the Gampong Gunong Rotan (Glee Awee) has mineral resources, one of which is gold. The Gampong Secretary emphasized that the Gampong Gunong Rotan area was once the center of the people's mining area, which was managed independently by the Gunong Rotan community group.

The community needs to obtain a government permit to manage a mine. However, piles of waste from gold rock processing along the main road to Gampong Gunong Rotan indicate that this mine is illegal. This condition violates the regulations even though gold mining is highly promising from the economic perspective and is an alternative non-timber economic source collected and processed from the forest.

The discussion in the last paragraph leaves many questions regarding managing these natural resources. Is the gampong government, especially gampong-owned enterprises, involved in managing the natural resources, namely gold, in the area? How is the mine operated? What is the hierarchical structure of the mining workers?

It is essential to carry out this research to obtain qualitative answers. Moreover, this research can assist the government in determining and updating regulations on managing limited natural resources at the gampong or village level. Based on the regulation, obtaining permits to manage gold resources is not easy because the central government grants them.

The large amount of gold waste neatly arranged in people's yards has also become an interesting research focus from ecological justice or legal sociology perspectives. It is essential to seek answers to this issue because it is possible that all elements of the society along the Tgk Peulumat Road to the Gampong Gunong Rotan area are involved, or the waste in the residents' yards could be a gift from illegal gold mining.

Therefore, in-depth research on the management of illegal gold mines is required to respond to the specified phenomenon. The next question is regarding the importance of studying illegal mining. It must be understood beforehand that although the gold mine is illegal, it is an alternative economic source for the community.

Mine management in Peru. The gamble between explorers, namely colonialists, to rule. The authors read a journal titled "Mining and community relations in Peru: Can agreement be reached?" The study in this journal describes a city that combines the history of colonialization and cultural heritage, which is motivated by a management pattern that is mutually related to society. Mining has a relationship with existing and increasing social conflict

in Peru. Mining expansion faces challenges from traditional Andean communities, which makes it increasingly difficult for them to seek employment. The study in Peru concludes that mining conflicts between companies and traditional communities require adequate analysis and strategies that must understand the underlying social, cultural, and historical forces.¹⁹

Mining in New Zealand is managed by mining companies, which involves the indigenous Maori community. This involvement is intended to ensure a reasonable agreement for indigenous communities apart from statutory regulations and company initiatives.²⁰

Mining in Ghana as an occupation is also intriguing to be discussed. Artisanal Small-Scale mining (ASM) activities are more than just legal or illegal activities to make a living, which influence the occupation process into two different parts. The negative effect of this activity is the deterioration of capabilities, including tangible and intangible resources. The short-term effect of ASM is that traditional patterns and techniques are more dominant even without capital investment.²¹

Another example in the African continent, namely Ivory Coast, also uses artisanal methods in managing its gold mines. For traditional communities, this mining method has a positive impact, i.e., reducing poverty rates and enabling parents to send their children to school. Another positive impact is the construction of schools and hospitals around mining areas using funds sourced from miners' donations, which also improves the surrounding community's economy. However, there is a high risk because the activity does not consider environmental conditions.²²

In the 21st century, artisanal gold miners must be encouraged to spread their stories because they have succeeded materially and culturally. Their success

¹⁹ Oswaldo Morales, Andrew N. Kleit, and Gareth H. Rees, "Mining and Community Relations in Peru: Can Agreement Be Reached?," *Academia Revista Latinoamericana de Administracion* 31, no. 3 (2018): 605–24, <https://doi.org/10.1108/ARLA-04-2016-0092>.

²⁰ Diane Ruwhiu and Lynette Carter, "Negotiating 'Meaningful Participation' for Indigenous Peoples in the Context of Mining," *Corporate Governance (Bingley)* 16, no. 4 (2016): 641–54, <https://doi.org/10.1108/CG-10-2015-0138>.

²¹ Theresa Yaaba Baah-Ennumh and Joseph Ato Forson, "The Impact of Artisanal Small-Scale Mining on Sustainable Livelihoods," *World Journal of Entrepreneurship, Management and Sustainable Development* 13, no. 3 (2017): 204–22, <https://doi.org/10.1108/wjemsd-09-2016-0042>.

²² Kouame Joseph Arthur Kouame, Fuxing Jiang, and Zhu Sitao, "Artisanal Gold Mining's Impact on Local Livelihoods and the Mining Industry in Ivory Coast," *World Journal of Science, Technology and Sustainable Development* 14, no. 1 (2017): 18–28, <https://doi.org/10.1108/wjstd-09-2016-0056>.

were not achieved alone because they had to negotiate artisanal mining management with differences in class and education. Eventually, artisanal mining has played an essential role in alleviating poverty through job creation and on-the-job training for millions in Africa and Asia.²³

In Bombama, North Sulawesi, Indonesia, artisanal gold mining has spread mercury that is used to process gold. This practice has damaged ecosystems, including fish ponds, estuary fishing locations, and irrigation.²⁴ Besides in Africa, artisanal mines, i.e., mining that uses simple tools and simple machines, are also found in Indonesia. Many factors influence the management of illegal mining by traditional communities in Indonesia.

The management of illegal mining in Indonesia involves a complex structure with many actors, including politicians, government officials, and law enforcement officers, adding complexity to the illegal mining issue in Indonesia. The factors that increase the emergence of illegal gold mining are finance, regulations, policies, low income, supporting natural resources, politics, power, and psychosocial.²⁵ Even if there are actors who show compliance, it is only limited to administrative aspects.²⁶

Mining management in Sumalata District, North Gorontalo Regency, began in the 1970s. Traditional mine management, reopened by the local communities, continues as a legacy of the Dutch colonial era. Communities around the mining location depend on traditional mining for their livelihoods. Lack of education in the community causes a large amount of mercury to be absorbed by plants, which affects the antioxidant system and photosynthesis, as well as inhibits plant growth and production. This research shows that mercury concentrations are higher in roots than in leaves. This condition is caused by

²³ Deborah Fahy Bryceson, "Artisanal Gold-Rush Mining and Frontier Democracy: Juxtaposing Experiences in America, Australia, Africa and Asia," in *Between the Plough and the Pick*, ed. Kuntala Lahiri-Dutt (ANU Press, 2018), <http://www.jstor.org/stable/pdf/j.ctt22h6r60.7.pdf>.

²⁴ Sara Beavis and Andrew McWilliam, "Muddy Rivers and Toxic Flows: Risk and Impacts of Artisanal Gold Mining in the Riverine Catchments of Bombana, Southeast Sulawesi (Indonesia)," in *Between the Plough and the Pick*, ed. Kuntala Lahiri-Dutt (ANU Press, 2018), <https://www.jstor.org/stable/j.ctt22h6r60.19>.

²⁵ Ongku P. Hasibuan, Jann H. Tjakraatmadja, and Yos Sunitiyoso, "Illegal Gold Mining in Indonesia: Structure and Causes," *International Journal of Emerging Markets*, 2020, <https://doi.org/10.1108/IJOEM-11-2019-0964>.

²⁶ Dyah Mustika Prasetyaningsih et al., "Effectiveness of Environmental Law Implementation: Compliance and Enforcement," *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi* 5, no. 2 (2022): 222, <https://doi.org/10.24090/volksgeist.v5i2.6826>.

waste from gold processing being dumped into the treatment tank, which flows into the river once the tank is full.²⁷

The mining management differs in West Java. Management of gold mines in this region is influenced by *kesepuhan*. Gold mine management has two risks, i.e., mine tunnel collapse and mercury poisoning. The first case is explained using natural cosmos patterns based on the local people's traditional mindset, who consider gold extraction to disturb the cosmological balance; thus, human sacrifice is required to restore the balance. Meanwhile, mercury poisoning is retrospective and can only be explained by modern science because the risks from mercury are indirect and appear slowly.²⁸

The issues related to artisanal mining in several regencies in Aceh are interesting. An example is the policy issued by the Aceh Jaya Regency government. Some miners refused to pay fees to the local government because the regency government was not involved in clearing the path towards the community mining areas. The Aceh Jaya regency government then appealed to miners to join community cooperatives in Aceh Jaya. The people of Aceh Jaya supported this appeal.²⁹

Apart from Aceh Jaya Regency, community mines without permits are also found in Pidie Regency. Four districts with illegal minings produced 0.58/gram of gold content. The gold mines are located in a hilly area with a slope of up to 37%.³⁰

This research focuses more on ecological justice, which differs from previous studies. This research was conducted on Mount Peulumat, which has the potential of natural mineral resources in the form of gold rocks. The research was carried out at a site with many *uwuak ameh* excavations, i.e., around 6-8 *uwuak ameh*. Even though there are many *uwuak ameh* in this location, the

²⁷ M. Mahmud et al., "Study of Mercury Concentration in Plants in Traditional Buladu Gold Mining," *IOP Conference Series: Earth and Environmental Science* 314, no. 1 (2019), <https://doi.org/10.1088/1755-1315/314/1/012018>.

²⁸ Rini Soemarwoto and Roy Ellen, "Gold Mining and Changing Perceptions of Risk in West Java," *Human Organization* 69, no. 3 (2010): 233–41, <https://doi.org/10.17730/humo.69.3.gk887801m1476105>.

²⁹ Aminah Aminah, "Kebijakan Pemerintah Kabupaten Aceh Jaya Dalam Pengelolaan Tambang Emas Rakyat Di Gunong Ujeun," *Jurnal Public Policy* 2, no. 2 (2016): 135–42, <https://doi.org/10.35308/jpp.v2i2.778>.

³⁰ Muhammad Hardi and Mussadun Mussadun, "Pengendalian Tata Ruang Kawasan Pertambangan Terhadap Kegiatan Pertambangan Emas Ilegal Di Kabupaten Pidie," *Jurnal Pembangunan Wilayah & Kota* 12, no. 1 (2016): 61, <https://doi.org/10.14710/pwk.v12i1.11457>.

patron-client research was only carried out on one *uwuak ameh*, namely the *uwuak ameh* headed by Majun.

The *uwuak ameh* led by Majun was selected due to several reasons: 1) the *uwuak ameh* produces the most gold rocks, i.e., it can produce approximately 20-25 sacks of gold rocks per day; 2) this *uwuak ameh* was the first to discover gold before other *uwuak ameh*; 3) Majun is one of the mentors of other *uwuak* leaders at the gold mining area in Peulumat Mountain.

This qualitative research used a constructive paradigm and a socio-legal approach because it viewed actual law in society,³¹ namely the social activities of society,³² which differentiates it from other legal studies.³³ Data were collected at the research location through observation, interviews, and reviewing related legal documents. The data for this study was collected by conducting interviews with the secretary of Gampong Gunong Rotan, the *uwuak ameh* chief, and several workers under the *uwuak ameh* chief's work system.

Patron-Client Mechanism in Artisanal Gold Mines in Peulumat Montains, South Aceh Regency

Patron is derived from the word *paronust*, which means "*noble*", while the word client comes from the word *client*, which means follower³⁴. A patron-client relationship can be defined as a bond involving an individual with a higher status (the patron) who exerts influence over someone with a perceived

³¹ Muhammad Chairul Huda, *Metode Penelitian Hukum (Pendekatan Yuridis Sosiologis)* (Semarang: The Mahfud Ridwan Institute, 2020); Hartono, "Pembangunan Hukum Dengan Pendekatan Sosio-Lega," *At-Tawazun* VII, no. 1 (2019): 21; Hasuri, "Sistem Peradilan Pidana Berkeadilan Melalui Pendekatan Kontrol Dalam Proses Penegakan Hukum," *Ajudikasi: Jurnal Ilmu Hukum* 3, no. 2 (2019): 171, <https://doi.org/10.30656/ajudikasi.v3i2.1879>; Hamdan Rampadio, "Rekonstruksi Peran Jaksa Berdasarkan Pendekatan Sosio- Legal," *Rechtsidee* 13, no. Desember (2020): 13, <https://doi.org/https://doi.org/10.21070/jihr.v11i0.792>.

³² Ahmad Ulil Aedi, Sakti Lazuardi, and Ditta Chandra Putri, "Arsitektur Penerapan Omnibus Law Melalui Transplantasi Hukum Nasional Pembentukan Undang-Undang," *Jurnal Ilmiah Kebijakan Hukum* 14, no. 1 (2020): 5-6, <https://doi.org/10.30641/kebijakan.2020.v14.1-18>.

³³ Syafri Hariansah, "Analisis Implementasi Nilai-Nilai Budaya Hukum Dalam Kehidupan Berbangsa Dan Bernegara: Studi Kritis Pendekatan Masyarakat, Budaya Dan Hukum," *Krtha Bhayangkara* 16, no. 1 (2022): 123, <https://doi.org/10.31599/krtha.v16i1.1000>.

³⁴ Fitriyah Nurul Faizah, "Hubungan Patron Klien Blandong Dengan Mandor Hutan The Relation Between Blandong Client Patron With Forest Foreman," *Dialektika Masyarakat: Jurnal Sosiologi* 2, no. 2 (2018): 51.

lower status (the client).³⁵ Individuals with higher status provide benefits to those with lower status³⁶; thus, the patron-client relationship is inseparable from economic interests or economic relations³⁷.

There are four essential elements in managing traditional gold mines: landowners, investors, workers, and lansir groups. Managing a gold mine using only courage is lucrative; however, opening a gold mine also triggers further problems. This condition is due to the absence of standard operating procedures (SOP) for opening mining wells. Furthermore, there needs to be more human resources who understand healthy mine management and maintain the safety of all workers. Nevertheless, economic resources and the use of existing resources are the most critical aspects.

Traditional mining in Kemukiman Tgk Keuramat has been operational for a long time but has spread and been utilized massively since early 2020. The mining is classified as artisanal or small-scale gold mining³⁸. Apart from Indonesia, the artisanal mining model also occurs in various countries and has been passed down through generations³⁹. Artisanal mining management remains very traditional and uses human labor, namely individual or group miners⁴⁰. This type of mining is called small-scale gold mining or artisanal,

³⁵ Bahrul Ulum Rusydi, Wahyudi Wahyudi, and Marya Ulfa, "Hubungan Patron-Klien Pada Komunitas Nelayan Dalam Kerangka Ekonomi Islam," *Al-Amwal: Journal of Islamic Economic Law* 6, no. 1 (2021): 3–4, <https://doi.org/10.24256/alw.v6i1.2158>; Gilang Ramadhan, "Pilkada Bekasi Dalam Dilema Patron Klien: Antara Sosiologi Politik Dan Pemilih Rasional," *Journal of Social Politics and Governance (JSPG)* 2, no. 1 (2020): 18–19, <https://doi.org/10.24076/jspg.v2i1.176>.

³⁶ Muhamad Nastain and Catur Nugroho, "Relasi Kuasa Dan Suara: Politik Patron Klien Pada Pilkada Langsung Di Kabupaten Grobogan 2020," *Politika: Jurnal Ilmu Politik* 13, no. 1 (2022): 171, <https://doi.org/10.14710/politika.13.1.2022.167-184>.

³⁷ Syarifuddin et al., "Relasi Patron Klien Panrita Lopi Di Desa Bira Kabupaten Bulukumba," *Jurnal Ilmu Sosial Dan Humaniora* 11, no. 3 (2022): 539–40, <https://doi.org/10.23887/jish.v11i3.47430>.

³⁸ Hanan Nugroho, "Pandemi Covid-19: Tinjau Ulang Kebijakan Mengenai PETI (Pertambangan Tanpa Izin) Di Indonesia," *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning* 4, no. 2 (2020): 119, <https://doi.org/10.36574/jpp.v4i2.112>.

³⁹ Melisa Nasir et al., "Relevansi Regulasi Pertambangan Internasional Dengan Penanganan Covid-19 Di Indonesia," *AL-MANHAJ: Jurnal Hukum Dan Pranata Sosial Islam* 5, no. 1 (2023): 230, <https://doi.org/10.37680/almanhaj.v5i1.2073>.

⁴⁰ Direktorat Pengelolaan B3 Kementerian Lingkungan Hidup dan Kehutanan, "Pertambangan Emas Skala Kecil (PESK): Tantangan Dalam Akses Pembiayaan," accessed October 17, 2023, <https://sib3pop.menlhk.go.id/index.php/articles/view?slug=pertambangan-emas-skala-kecil-pesk-tantangan-dalam-akses-pembiayaan>.

which is commonly referred to as traditional mining⁴¹ because it uses a traditional method⁴².

Researchers discovered several aspects that are essential elements and keys to the success of this mining. These aspects include:

1. Landowner
2. Investor
3. Chief Worker
4. Workers
5. Driller
6. Permanent Assistants
7. Casual Assistants
8. Female groups who crush ameh rocks

The patron-client scheme above was generated from field research consisting of interviews and direct observations at gold mining locations. A very strong patron-client relationship is between the investor and its structure below. The strong dependence of workers on investors includes dependence on money they borrow from investors.

A worker in the *uwuak ameh* explained that before mining activities started, the worker first borrowed money from investors through the *uwuak* chief for daily household needs. The money is used to pay for children's education, household needs, and social activities in the village.⁴³ Almost all workers in the *uwuak ameh* are dependent on investors. So, at that stage, there is interdependence between two parties, namely between investors and workers.

The costs of these necessities will later be deducted from the mining wage. At this stage, all workers' necessities are recorded by the *uwuak ameh* chief. The *uwuak ameh* chief has a vital role, namely keeping records of ameh rock expenditure and recording the *uwuak*'s financial expenditure. The *uwuak ameh* chief is a person trusted by the workers under the *uwuak ameh* work hierarchy and is also trusted by investors to produce gold nuggets from the excavated *uwuak*.

In the *uwuak ameh* work system, the outcome depends on the facilities

⁴¹ Ami A. Meutia, Royke Lumowa, and Masayuki Sakakibara, "Indonesian Artisanal and Small-Scale Gold Mining—A Narrative Literature Review," *International Journal of Environmental Research and Public Health* 19, no. 7 (2022): 2, <https://doi.org/10.3390/ijerph19073955>.

⁴² Abd Mujahid Hamdan et al., "Future Direction of Au Agromining on How to Solve Artisanal and Small Scale Gold Mining Problems," *Journal of Degraded and Mining Lands Management* 8, no. 4 (2021): 2972, <https://doi.org/10.15243/JDMLM.2021.084.2971>.

⁴³ Anonymus, "Personal Interview" (2021).

provided by the investor, such as simple tools for digging *uwuak* (wells), which are considered to have the potential for *ughek ameh* (gold roots). The *uwuak ameh* chief has a vital role at this stage, i.e., seeking the roots or grooves of gold, which are considered to lead to significant sources of gold. The function and role of each actor in *uwuak ameh* are discussed below.

1. *Landowner*

The landowner has a significant role because the land-use work contract occurs between the investor and the landowner. Investors pour their money into illegal gold mining not based on technological sophistication in gold detection but on suggestions, input, and stories from the local community. One land can consist of many *uwuak ameh*. At the research location, the land where illegal gold mining is carried out is owned by Hamba Laeh, a name given by the local community following the character of Hamba Laeh.

Hamba Laeh, as a landowner, is dependent on investors in terms of profit sharing from gold rocks in sacks, which the local community calls *ampang ameh*. The sharing of mining results refers to the agreement between the landowner and the investor. The landowner does not spend any capital. Instead, he only permits the investor to take the proceeds from the land as agreed upon by Hamba Laeh.

2. *Investor*

Investors can be male or female, but no female investors were found in this study. Investors in a hierarchical system are looking for groups of workers who are experienced in managing artisanal gold mines. The Majun group is a group that has often carried out artisanal mining activities and has moved to several locations in South Aceh.

3. *Worker Chief/ Uwuak Chief*

The worker or *uwuak* chief is a significant person in the work hierarchy. This individual determines who can and cannot work in the *uwuak* system and the work schedule. The *uwuak* chief determines the commitment with the *uwuak* worker group from the beginning of the artisanal gold mine operation, determines the mechanism for sharing mining results with investors, and explains the mechanism for meeting the workers' daily needs both at the mining site and at home. The *uwuak* chief is highly dependent on the workers in the *uwuak* because of their services and professionalism. The *uwuak* chief's dominance over the workers is due to his skill in finding underground gold flows.

4. *Workers*

These workers constitute the hierarchy in the uwuak work system under the uwuak chief. Workers have become attached to the uwuak chief in seeking gold in artisanal gold mines. They only use their physical strength in opening mines or *uwuak ameh* (gold well mine). The *uwuak ameh* workers in this study are inseparable from the uwuak chief, i.e., they are highly dependent on the uwuak chief because the chief determines their employment status.

5. *Driller*

Drillers are additional team members. The presence of a driller is conditional; for example, they are needed when many gold rocks are discovered and must be crushed using a drill. A preferable driller is experienced in drilling or crushing rocks. The uwuak chief selects the driller based on his beliefs. The presence of a driller is conditional and tentative.

6. *Permanent Assistants*

Permanent assistants are additional team members, similar to the drillers, but the permanent assistants are present from the opening of *uwuak ameh* until a result is obtained. Similar to the drillers, their presence is determined by the uwuak chief. Permanent assistants are expected to be present at the *uwuak ameh* location when there are many boulders; however, if only a few boulders are discovered which can be handled by the workers, the assistants are free to carry out other activities. The assistants will be summoned again when many boulders are discovered.

7. *Casual Assistants*

Casual workers are individuals from around the location who seek employment. The uwuak chief determines their employment. If the uwuak chief thinks additional members are required, he will recruit those who live in the surrounding neighborhood.

8. *Female groups who crush ameh rocks*

The female group is highly dependent on the hierarchy above. This group does not exist because the dominators exploit it in the uwuak hierarchy system, but it exists due to the group's demand for a source of family economic income. This group is not located at the mine or uwuak site, but at the dominators' homes. For example, the uwuak chief is one of the dominators who gets a lot of profit sharing, so a group of women in the uwuak chief's neighborhood offers to crush the gold boulders owned by the chief.

The patron-client management scheme in traditional artisanal gold mining in Kemukiman Tgk Keuramat is depicted below.

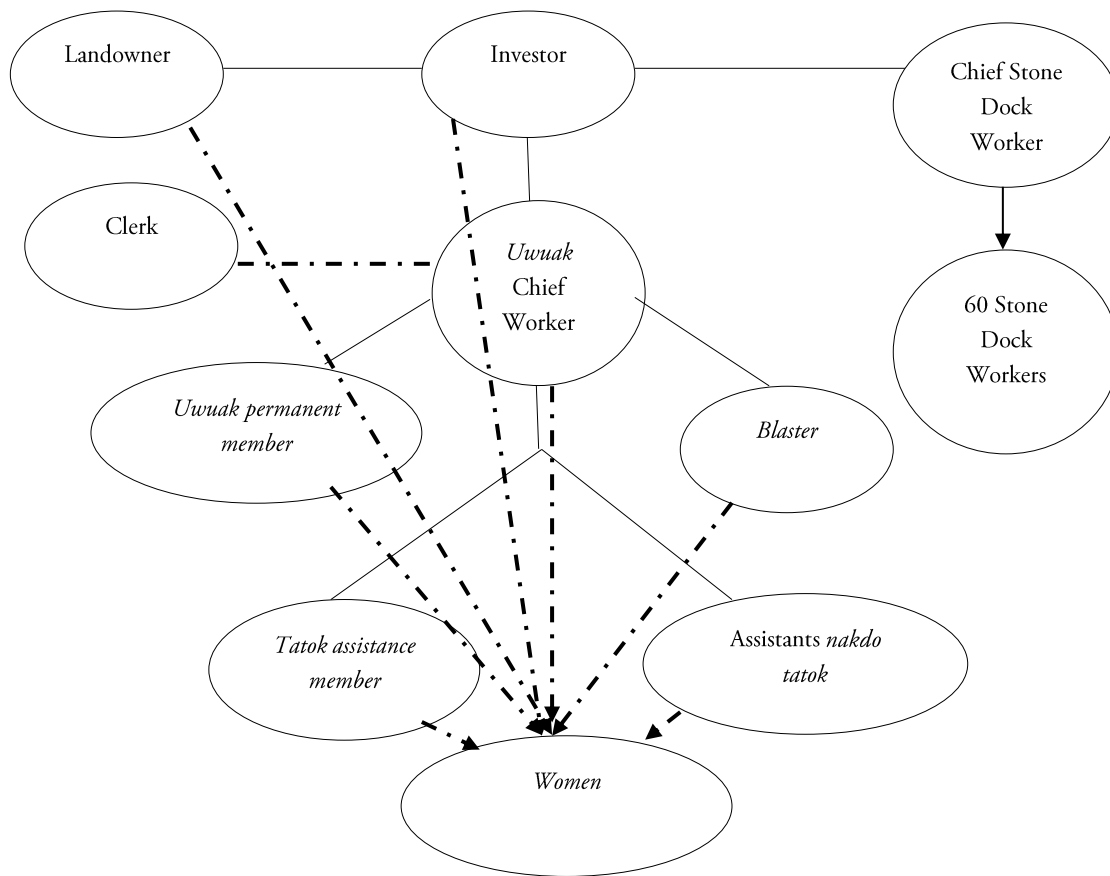


FIGURE 1. The patron-client management scheme in traditional artisanal gold mining

Opportunities & Legal Implementation in Granting People's Mining Licenses & Areas Based on Ecological Justice

There is no detailed legal aspect regarding the management of traditional gold mines, but what is mentioned is the Community Mining Permit or Community Mining Area. The legal aspects regarding the management of traditional gold mines are not mentioned in detail, but what is mentioned is People's Mining Permits or People's Mining Areas. If you read briefly about the terminology of both, the law allows people to manage mines, but are the mines referred to in the terminology appropriate? with what is imagined in the text of this article?

The issue of natural resource management is still a very big homework assignment for Indonesia. If we look at the goals of the state, realizing prosperity for the people is the main goal, and this is also confirmed in the Constitution of the Republic of Indonesia 1945.

Natural resource management is emphasized in Article 33 Paragraph (3) of the Constitution of the Republic of Indonesia 1945 which reads: "The land and waters and the natural wealth contained in it shall be controlled by the state and utilized for the optimal welfare of the people". The confirmation of this article shows that all forms of natural resources available in the bowels of the earth of Indonesia are intended for the welfare of the people.

Regarding the management of community mines in Indonesia, there are several regulations regarding the management of mines. This regulation will be described below and conclusions will be drawn regarding the legal opportunities that will be an opportunity to establish a community mining area.

After the reform there was a national regulation governing mineral and coal mining which specifically mentioned community mining areas, namely Law of the Republic of Indonesia Number 4 of 2009 Concerning Mineral and Coal Mining. This law does not mention traditional mining in detail, but limits it to community mining areas. Article 1 number 32 of Law of the Republic of Indonesia Number 4 of 2009 concerning Mineral and Coal Mining explains that Community Mining Areas are defined as part of mining areas where community mining business activities are carried out.⁴⁴

Specific regulations regarding Community Mining Areas are regulated in Part Three of Article 20 to Article 26 of Law of the Republic of Indonesia Number 4 of 2009 concerning Mineral and Coal Mining. If we talk about legal opportunities, there are 2 very urgent articles in this section, namely Article 21 and Article 22. Article 21 states that the People's Mining Area as intended in Article 20 is determined by the regent/mayor after consulting with the district/city Regional Representative Council.⁴⁵

Meanwhile, Article 22 emphasizes the criteria for establishing a Community Mining Area, namely: a) having secondary mineral reserves found in rivers and/or between riverbanks and banks; b) has primary metal or coal reserves with a maximum depth of 25 (twenty five) meters; c) terrace deposits, flood plains, and ancient river deposits; d) the maximum area of a community mining area is 25 (twenty five) hectares; state the type of commodity to be

⁴⁴ Republik Indonesia, "Undang-Undang Republik Indonesia Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara." (2009).

⁴⁵ Republik Indonesia.

mined; and/or f) is an area or place of community mining activities that has been carried out for at least 15 (fifteen) years.⁴⁶

There are changes to Law of the Republic of Indonesia Number 4 of 2009 concerning Mineral and Coal Mining which has been changed to Law of the Republic of Indonesia Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 concerning Mineral and Coal Mining.

Because of the changes to the latest law, it confirms the criteria for community mining areas as regulated in Article 22, which reads as follows: a) has secondary mineral reserves found in rivers and/or between riverbanks and banks; b) has primary reserves of metallic minerals with a maximum depth of 100 (one hundred) meters; c) terrace deposits, flood plains, and ancient river deposits; d) the maximum area of the WPR is 100 (one hundred) hectares; e) mention the type of commodity to be mined; and/or f) fulfill the criteria for space and area utilization for Mining Business activities in accordance with the provisions of statutory regulations.⁴⁷

A derivative of Law of the Republic of Indonesia Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 concerning Mineral and Coal Mining is Government Regulation of the Republic of Indonesia Number 25 of 2023 concerning Mining Areas which also regulates Community Mining Areas which are regulated in Section The third consists of 5 articles, namely from Article 35 to Article 40.⁴⁸

If we examine the national regulations mentioned above and compare them with existing data in the field, it is very possible to obtain legality for traditional miners in the Peulumat Settlement to convert to a community mining area. The next opportunity is that villages that are close to the mining location could utilize Gampogn's Business Entity as a cooperative or business entity to manage the mine into a mine that is beneficial to the people.

⁴⁶ Republik Indonesia.

⁴⁷ Republik Indonesia, "Undang-Undang Republik Indonesia Nomor 3 Tahun 2020 Perubahan Atas Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambang Mineral Dan Batubara," Pemerintah Republik Indonesia § (2020), [https://jdih.esdm.go.id/storage/document/UU No. 3 Thn 2020.pdf](https://jdih.esdm.go.id/storage/document/UU%20No.%203%20Thn%202020.pdf).

⁴⁸ Presiden Negara Republik Indonesia, "Peraturan Pemerintah Republik Indonesia Nomor 25 Tahun 2023 Tentang Wilayah Pertambangan" (2023), [https://peraturan.bpk.go.id/Download/305815/PP Nomor 25 Tahun 2023.pdf](https://peraturan.bpk.go.id/Download/305815/PP%20Nomor%2025%20Tahun%202023.pdf).

The Concept of Ecological Justice in Artisanal Gold Mining in Kemukiman Peulumat, East Labuhan Haji, South Aceh Regency

The concept of justice involves evaluating the treatment or actions and studying them within a normative framework that, according to subjective views (subjective to the interests of a particular group), may override other norms,⁴⁹ particularly those related to ecology. Environmental justice, based on the taxonomy of justice, is categorized into four groups: distributive justice, corrective justice, procedural justice, and social justice⁵⁰.

Ayom Mratita Purbandani and Rangga Kala Mahaswa stated that "*ecological justice*" has become a popular buzzword despite its ambiguous meaning. The meaning of ecological justice has various concepts that are contested with each other. These concepts are diverse, from distributive justice, distinguishing between what is environmentally "good" and "bad", benefits and risks, to arguments regarding participatory and procedural justice. Ecological justice is an ethical motivation that will be realized if ecofeminism is established at the level of consciousness, theory, practice, and daily practice.⁵¹

However, the definition of ecological justice needs to be re-elaborated because there is no standard perception regarding ecological justice. In the parable of rights, women and children have rights, but the interpretation of "rights" evolves into justice. The definition of rights has developed to the point that it is considered absurd. When we can construct a new ethical theory of rights, we can shift to the rights of nature. This effort is the result of rigorous philosophical study and arduous political struggle. Finally, we understand that nature has rights; thus, ecological justice is a new type of justice. The definition of ecological justice is understanding the intrinsic value in ecological logic that must be explained to the public and government. For the Indonesian context,

⁴⁹ Elly Kristiani Purwendah, "Konsep Keadilan Ekologi Dan Keadilan Sosial Dalam Sistem Hukum Indonesia Antara Idealisme Dan Realitas," *Jurnal Komunikasi Hukum*, 2019, <https://doi.org/10.23887/JKH.V5I2.18425>.

⁵⁰ Elly Kristiani Purwendah and Hartana, "Konsep Keadilan Ekologi Dan Keadilan Sosial Dalam Sistem Hukum Indonesia Antara Idealisme Dan Realitas," *Jurnal Pacta Sunt Servanda* 4, no. 1 (2023): 106.

⁵¹ Ayom Mratita Purbandani and Rangga Kala Mahaswa, "Ekofeminisme Kritis: Menelaah Ulang Gender, Keadilan Ekologi, Dan Krisis Iklim," *Jurnal Perempuan* 27, no. 3 (2022): 223–37, <https://doi.org/10.34309/jp.v27i3.733>.

the term ecology is closer to economics⁵² because ecological justice is interpreted as the use of space for various purposes based on consideration of the rights and interests of the parties on a space.⁵³

The utilization of natural resources is inseparable from humans as an eco-centric in the universe. Proper and correct use of natural resources is part of the realization of Islamic values, which is inseparable from the concept of ecological justice⁵⁴. Poor natural resource management gives the impression that nature is only used for economic justice for local authorities under the pretext of ecological justice.⁵⁵ Therefore, ecological justice occasionally evaluates the values of stakeholders, groups, and individuals who impact that justice.⁵⁶

If so, focusing on justice in the distribution of environmental benefits and burdens and the processes determining that distribution is related to ensuring both 'fair treatment' and 'significant involvement' of poor, racialized, and indigenous communities in environmental policy and natural resource development decisions⁵⁷. These decisions often lead to these communities bearing disproportionate environmental damage. Therefore, ecological justice is also influenced by justice-based policies for communities residing in mining sectors.⁵⁸

The definition above shows that ecological justice is divided into two components that influence each other. The first component is ecological justice

⁵² Lola Lovieta, "Mencari Keadilan Ekologis," 2014, <https://www.jurnalperempuan.org/warta-feminis/mencari-keadilan-ekologis1>.

⁵³ Afrizal Afrizal, "Kontestasi Ruang; Tinjauan Sosiologis Keadilan Ekologis," *Jurnal Ilmu Sosial Mamangan* 1, no. 1 (2012): 1–2, <https://doi.org/10.22202/mamangan.v1i1.87>.

⁵⁴ Muhammad Suryadi, "Nahdhatul Ulama Dan Isu Lingkungan (Komitmen NU Mewujudkan Keadilan Ekologi Dan Sumber Daya Alam)," *Mimikri: Jurnal Agama Dan Kebudayaan* 9, no. 1 (2023): 131.

⁵⁵ Ibrahim, Dwi Haryadi, and Nanang Wahyudin, *Politik Ekologi Dan Pelajaran Dari Kasus Timah Bangka Belitung* (Yogyakarta: Istana Media, 2020).

⁵⁶ Hudali Mukti and Bobur Baxtishodovich Sobirov, "Environmental Justice at the Environmental Regulation in Indonesia and Uzbekistan," *Journal of Human Rights, Culture and Legal System* 3, no. 3 (2023): 489, <https://doi.org/https://doi.org/10.53955/jhcls.v3i3.171>.

⁵⁷ Hafizh Asfari, "Keadilan Lingkungan Pada Daerah Bantaran Sungai Pepe Kelurahan Sangkrah Ditinjau Berdasarkan Kualitas Fisik Lingkungan Dan Sosial Ekonomi Masyarakat Environmental Justice in the Pepe River Area , Sangkrah Village , Reviewed Based on The Physical Quality O," *KRESNA: Jurnal Riset Dan Pengabdian Masyarakat* 2, no. 1 (2022): 119–20.

⁵⁸ Erina Pane and Adam Muhammad Yanis, "Reconstruction of Mining Policies on Justice in Lampung Province," *Bestuur* 8, no. 2 (2020): 139–51, <https://doi.org/10.20961/bestuur.v8i2.42830>.

for nature itself, i.e., humans who use nature to fulfill their needs, as well as their family's and groups' needs, must have deeper awareness to preserve nature sustainably. The second type of justice arises from human themselves, caused by awareness and morals. Morals in the legal aspect are divided into three levels: obedience due to the work hierarchy factor, obedience to the law due to a benefit factor, and obedience to the law due to awareness. The ecological justice referred to in this article is depicted in the scheme below.

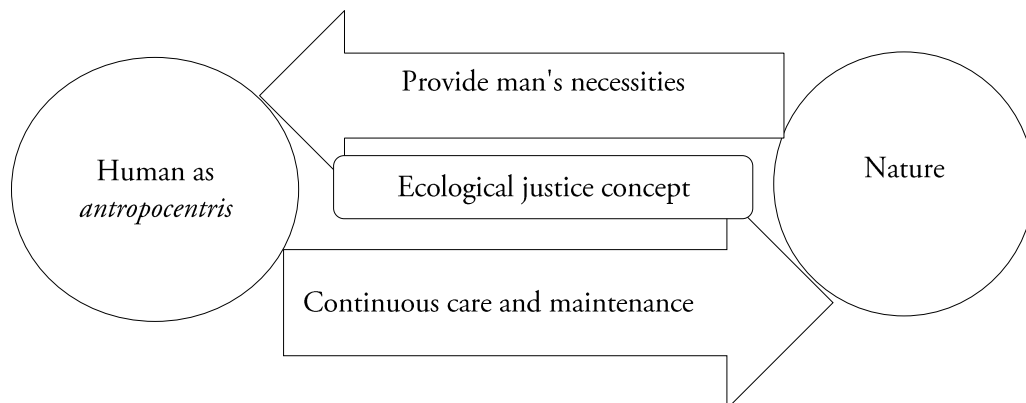


FIGURE 2. The ecological justice (based on Authors' analysis)

In connection with ecological justice, the question naturally arises, have forests received justice? Regarding this question, in this section the author will explain the forest damage caused by illegal gold mining in Aceh, especially South Aceh. In this section, what is meant by forest destruction is the increasingly worrying loss of forest cover.

Quoting the Wahana Lingkungan Hidup Aceh (Walhi), that 2,000 hectares of forest in Aceh had been damaged due to illegal gold mining activities. The government and police have been urged to eradicate illegal gold mining, and this has happened in the last 5 years and it is not impossible that this figure will continue to increase along with weak law enforcement to stop the rate of destruction.⁵⁹ Most of the forest damage was in Pidie, Central Aceh, Aceh Jaya, West Aceh, Nagan Raya and South Aceh districts.⁶⁰

Regarding the second justice, ecological justice in this study is inseparable from three fundamental components of the human life pattern: humans, natural resources, and human necessities. These three components will become

⁵⁹ Agus Setyadi, "Walhi: 2.000 Hektare Hutan Aceh Rusak Akibat Tambang Emas Ilegal," 2021, <https://news.detik.com/berita/d-5808541/walhi-2-000-hektare-hutan-aceh-rusak-akibat-tambang-emas-ilegal>.

⁶⁰ Rahmat Fajri, "WALHI: 2.000 Hektar Hutan Aceh Rusak Akibat Tambang Emas Ilegal.," 2021, <https://www.antaranews.com/berita/2520549/walhi-2000-hektar-hutan-aceh-rusak-akibat-tambang-emas-ilegal>.

uncontrolled and trigger major natural problems if not managed properly because they can damage nature. However, there will be justice for human's basic needs and nature if the components are managed wisely. The scheme referred to in this article is depicted below.

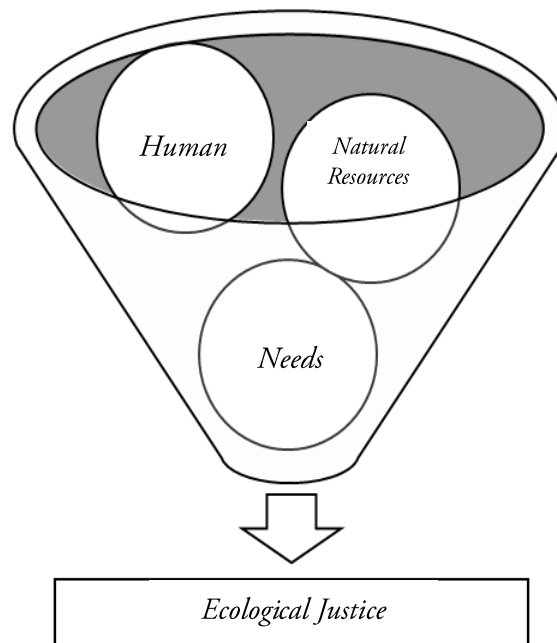


FIGURE 3. Scheme of Ecological Justice (according to this paper)

Regarding the concept of ecological justice above, a particular aspect cannot be interpreted in the awareness of workers in the gold mining area, especially related to how they stop using natural resources. Local people believe this is a way to respect nature. In addition, nature is essential for local communities, which is related to the habits of people who have been close to nature since birth. On the other hand, the gold mining area was historically one of the nutmeg and patchouli-producing areas in South Aceh⁶¹.

Awareness among laborers or mining workers helps maintain the sustainability of nature. Safety and continuous benefits are critical aspects of mining.⁶² Not all workers understand this concept. It is crucial that the mining does not use heavy equipment⁶³ because there are future children who also need to enjoy what nature provides.⁶⁴

⁶¹ Restu Adona Ismi, "Personal Interview" (2023).

⁶² Majun, "Personal Interview" (2021).

⁶³ Majun.

⁶⁴ Iki, "Personal Interview" (2021).

There is an awareness that is not found in the classroom to maintain environmental sustainability and realize justice for nature. Nature and humans have boundaries and different ways to reprimand. The workers understand nature's way of reprimanding them by observing nature, such as water released from the mine rock in the well. Workers in informal gold mines indeed sense this.⁶⁵

The mining well, which is the location of this research, is in a private plantation area. The site is on sloping ground, which has the potential for landslides. However, the location is strategic for utilizing natural mineral resources, namely gold, because there is a creek and a motorbike parking area for the illegal mining workers below the site. The potential for landslides and life-threatening dangers is not a problem for workers because they surrender their fate to Allah SWT. Surrendering themselves and doing high-risk work are obligations for every worker. There is a saying that is believed by workers, i.e., "Staying at home will also threaten your life, and you will die, let alone work. Likewise, on the other hand, people who work hard will also come home safe and bring good fortune from the workplace. Risky work is indeed a man's work."⁶⁶

Apart from landslides, the biggest risk is drowning in mining wells due to water released from the ground. Regarding ecological awareness and justice, this risk is a sign from nature that gold mining and hunting should be stopped. This awareness may have emerged from previous experiences searching for gold within the earth. Majun confirmed this concept.⁶⁷

Majun is one of the leaders of the *uwuak* or mine well workers who is the person to look up to at the mining site. Majun emphasized that when he hunts for gold in the mountains and finds water in the process of digging, then it is a sign to stop.⁶⁸ According to Majun, this concept is not a myth, and a gold hunter on a small mining scale believes it is a sign to stop searching for gold.

Majun emphasized that the water can be sucked with a water machine, but that will not lead to anything other than reducing capital, while the water will never run out from the well. The following is the scheme for digging a well carried out during gold mining on Mount Peulumat, East Labuhan Haji

⁶⁵ Berkaitan formal dan tidak formal para pekerja tambang emas baca: Sizwe Timothy Phakathi, "'Getting on' and 'Getting by' Underground Gold Miners' Informal Working Practice of Making a Plan (Planisa)," *Journal of Organizational Ethnography* 2, no. 2 (2013): 127–43, <https://doi.org/http://dx.doi.org/10.1108/JOE-05-2012-0026>.

⁶⁶ Majun, "Personal Interview."

⁶⁷ Majun.

⁶⁸ Majun.

District, South Aceh Regency.

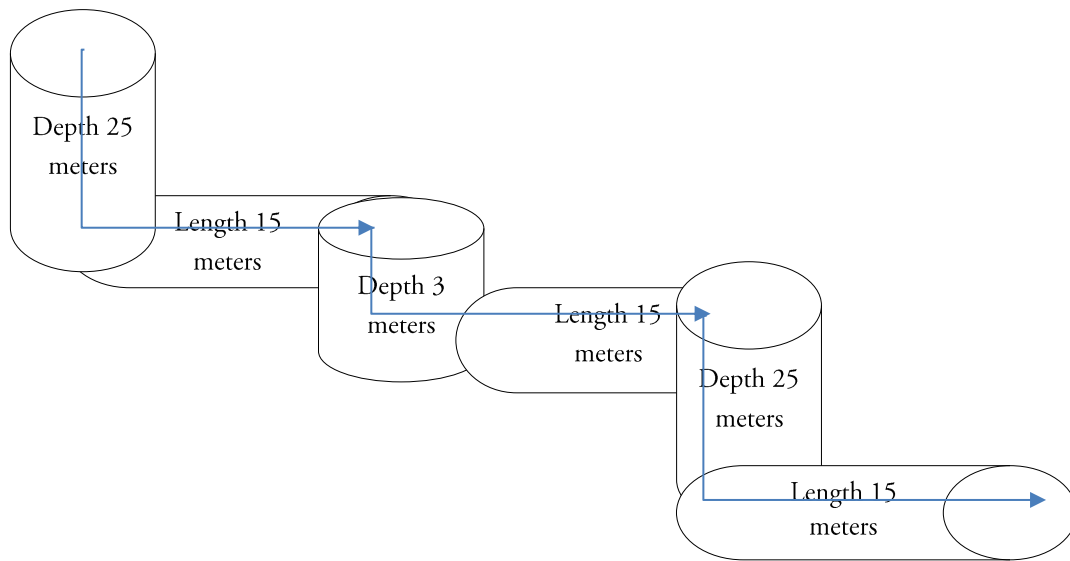


FIGURE 4. scheme for digging a well carried out during gold mining on Mount Peulumat

The explanation above illustrates how humans provide justice to nature by limiting the extraction of natural resources, which in this case are gold rocks in mining areas. There are two issues in the discussion on ecological justice: humans protect nature, and nature provides what humans need, which means that humans and nature are interdependent.

This research also discovers other perspectives on ecological justice that experts have defined. While completing the article, confirming and checking the validity of the data as part of scientific ethics, the author discovered that there is a distribution of natural resources, in this case gold, to groups in need.

The groups in need are poor widows, orphans, poor people, religious groups, or *teungku*. When reading the social text, it seems all the mine workers are religious. The mining results in sacks of gold rocks are distributed to the groups in need and the village *seumando*. *Seumando* is a cultural terminology in the Jamee tribe community in South Aceh Regency. Giving gold rocks to *seumando* expresses respect to foreigners or people from outside the village who marry girls from the local village. It is part of the traditional behavior of the local community.

Giving gold stones to maintain existing traditions and giving gold stones to people in need are two distinct acts. Despite their different contexts, both represent a form of social piety, ensuring that everyone can benefit from what nature provides. The behavior in these social texts raises the question, why do they do this? The socio-legal approach aims to understand something that

happens behind texts or norms. Therefore, the text in question refers to giving gold rocks to each society member.

God gifted gold that can be collected simply and cheaply for the people of Peulumat. If this gift is not managed well, it will lead to many possibilities, such as unlucky fortune and the disappearance of the gold from the mine site. In order to avoid all of this, good deeds must be conducted, such as sharing with other people in the community where the illegal mining is located.

Majun states, "Sharing with the community is a must for gold hunters using traditional mining methods. Such a gift is not essentially for us as the hunters but also for others entrusted through us. That is why we share it with people entitled to receive it indiscriminately." Majun continued, "We share not because we are religious but because life must be continuous."⁶⁹ We get results every day and we share them with different people."⁷⁰

Based on the study, the mechanism for sharing illegal gold mining results with the communities around the mining site is depicted below.

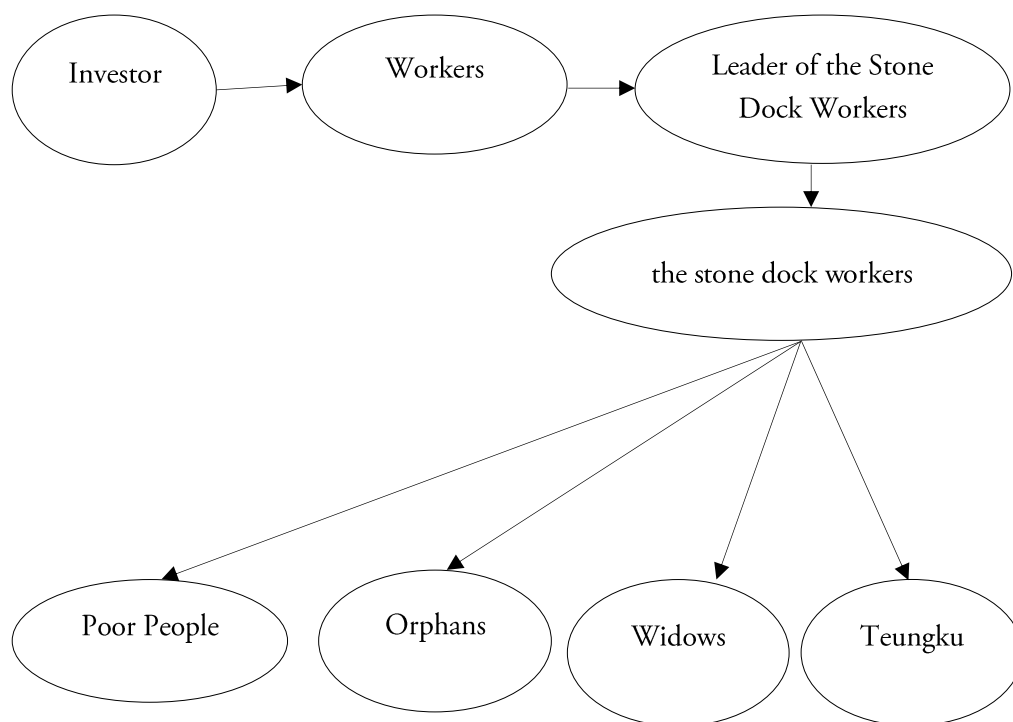


FIGURE 5. Mechanism for sharing illegal gold mining (based on this paper)

The research explains that a systematic work structure refers to the patron-client relationship in the traditional community system, especially gold hunters

⁶⁹ Majun.

⁷⁰ Majun.

who carry out traditional mining activities. This patron-client relationship exists in traditional mining workers' work structures, and the lowest hierarchy, which is non-binding, is the group of women who depend on the gold rock owners.

The study also shows that the livelihood of the traditional mining workers depends on the nature around where they live, in this case, gold in the mountainous area where they live. When mining for gold, there are several things that they must consider to ensure the sustainability of nature, namely placing restrictions on gold mining and sharing the results with residents around the mining area as a form of gratitude to God.

Conclusion

Ecological justice in traditional gold mining areas or artisanal gold mines can be viewed from the approach of protecting the natural environment. The mining area is a high-risk area. In order to reduce this risk, miners think nature is giving a message to stop mining activities if the well is flooded. Ecological justice also means sharing mining results with local communities. This research concludes that justice is given by humans to nature in the form of limits on natural exploitation. Furthermore, mining results are also shared with the community so that people who do not carry out mining activities also feel the grace of nature.

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