

## Pengulu Uten's Forest Management in Central Aceh: A Perspective of Fiqh al-Bī'ah

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### Abstract

Indonesia's legislation stipulates that forest management involves the active participation of indigenous communities, manifested in the form of *pengulu uten* in Central Aceh. However, it is essential to examine the degree to which the forest management model implemented by *pengulu uten* aligns with the principles of *fiqh al-bī'ah* in Islamic law. This study employs an empirical juridical approach with a qualitative methodology. The data was obtained through a literature review, focus group discussions, and interviews with *reje kampung*, *pengulu uten*, and other relevant stakeholders. The findings indicate that *pengulu uten* plays a significant role in forest management and supervision. They engage in community fostering, counseling, and socialization activities about protected forests, production forests, customary forests, and the utilization of forest resources. The existence of *pengulu uten* emerged long ago as customary institutions in forest management, so in Aceh, their existence is strengthened in the Qanun of Central Aceh Regency No. 10/2002 concerning Gayo Customary Law. However, there may occasionally be inconsistencies in forest management process since the function of *pengulu uten* is not carried out synergistically with other forestry officials. In light of this, the forest management by *pengulu uten* is found to be in accordance with *fiqh al-bī'ah* principles. It includes the protection of nature as the essence of religion, the enhancement of faith through forest management, the responsibility of humans as *Khalifah* to safeguard the environment, the practice of *al-amr bi al-ma'rūf wa al-nahy 'an al-munkar* in forest management, and the maintenance of ecosystem equilibrium.

### Abstrak

Peraturan perundang-undangan di Indonesia memandatkan pengelolaan hutan dengan melibatkan masyarakat Adat Aceh Tengah yang diwujudkan dalam bentuk *pengulu uten*. Maka, penting untuk mengkaji sejauh mana keserasian model pengelolaan hutan oleh *pengulu uten* dengan prinsip *fiqh al-bī'ah*. Penelitian ini menggunakan pendekatan hukum yuridis empiris dengan metode kualitatif. Data diperoleh melalui studi kepustakaan, FGD, dan wawancara dengan *reje kampung*, *pengulu uten*, dan *stakeholders*. Hasil penelitian menunjukkan bahwa *pengulu uten* memiliki peran signifikan dalam pengelolaan dan pengawasan hutan. Mereka melakukan kegiatan seperti membina, menyuluh, dan mensosialisasikan kepada masyarakat tentang hutan lindung, hutan produksi, hutan adat, dan pemanfaatan sumber daya hutan. Eksistensi *pengulu uten* muncul sejak dulu sebagai lembaga adat dalam pengurusan hutan sehingga di Aceh, keberadaan mereka dikuatkan dalam Qanun Kabupaten Aceh Tengah Nomor 10 Tahun 2002 tentang Hukum Adat Gayo. Namun, dalam praktiknya saat ini fungsi *pengulu uten* tidak dilakukan secara sinergis dengan petugas kehutanan lainnya sehingga terkadang terjadi ketidakseimbangan dalam pengelolaan hutan. Padahal, pengelolaan hutan oleh *pengulu uten* sesuai dengan prinsip *fiqh al-bī'ah* yang dinilai baik karena mencakup perlindungan alam sebagai esensi agama, kesempurnaan iman melalui pengelolaan hutan, peran manusia sebagai khalifah yang melindungi alam, amar makruf nahi mungkar dalam pengelolaan hutan, serta menjaga keseimbangan ekosistem.

### Keyword:

*forest management; pengulu uten; fiqh al-bī'ah; Central Aceh*

### How to Cite:

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## Introduction

This article analyzes the principles of *fiqh al-bī'ah* in the forest management model implemented by customary institutions in Central Aceh. This study responds to many forests becoming degraded due to massive forest exploitation by irresponsible parties. The factors include forest burning to clear land (Siregar & Silaban, 2020), theft of wood for personal use (Basir, 2016), and management breaches of granted permissions (Prakasa et al., 2018). The occurrence of unregulated forest exploitation can result in floods that cause harm to the community (Narindrani, 2018), such as the flood case that occurred on November 3-7, 2022, in East Aceh (Muhari, 2022), Aceh Tamiang (Harison), and West Aceh (Iskandar, 2022). As a result, it has repercussions on the larger society, such as land transportation congestion (Najmi, 2022), relocation of thousands of flood victims (Masriadi, 2022), shortage of availability of essential products (Herianto, 2022), and rising costs of essentials of life (Daniel, 2022). This problem boils down to the economic and social concerns of the Acehnese people every year.

Responding to the flood problem, the Indonesian Forum for the Environment (*Wahana Lingkungan Hidup Indonesia/WALHI*) stated that there are at least three factors that can be mapped quickly, namely high rainfall, topography, and massive land clearing so that forest areas decrease every year (Warsidi, 2017). Geographically, Aceh is home to Sumatra's intact rainforests, making it valuable for the preservation of indigenous Indonesian species. In addition, regarding the issue of forest cover loss in Aceh, Global Forest Watch stated that the reason began with 20 incidents of tree cover loss in Aceh between 2001 and 2016, totaling 560,249 hectares, which is equivalent to eight times the size of Jakarta, causing Aceh's forests to be threatened with extinction (Watch Forest, 2020). For instance, it is evident from WRI's published statistics that extensive deforestation has occurred in Aceh until now (Indonesia, 2018). Even in 2018, the area of rain cover decreased by 15,071 hectares, while forest cover decreased by 17,820 hectares. There will be 3,004,532 hectares of forest in Aceh till 2019 (Kehutanan, 2019). In addition, the Head of the Aceh Environment and Forestry Service, Ahmad Hanan, stated that an area of 3,144,216.23 hectares (ha), or 23 percent of the forest cover of Sumatra Island, is in the Aceh region. In terms of forest destruction, according to the Environmental Management Forest Area Arrangement Center (*Balai Penataan Kawasan Hutan Tata Lingkungan/BPKH TL*) in 2019-2020, about 1,596 ha<sup>2</sup> of Aceh's forests were deforested or damaged, including 842 ha<sup>2</sup> in Other Use Areas (*Areal Penggunaan Baru/APL*) and 1,114 ha<sup>2</sup> in forest areas. According to the findings, a comprehensive mapping exercise revealed the presence of three prominent regencies in Aceh that have experienced substantial deforestation. These regencies are identified as Aceh Tengah (1,924 hectares), Aceh Utara (1,851 hectares), and Gayo Lues (1,494 hectares) (Kehutanan, 2019).

In light of the challenges above, a potential solution to address forest management in Aceh is to incorporate the participation of indigenous communities, as exemplified by the customary institutions employed by the residents of Central Aceh (Narindrani, 2018). The form above of involvement is deemed strategic due to its current implementation at the national level, including in Jambi (D. A. Putra, 2020), Riau (HB & Hanifah, 2018), West Sumatra (Nuari, 2016), Central Kalimantan (Citranu, 2020), and South Kalimantan (Agung et al., 2018). Even on a worldwide scale, it has been documented in China (Zhao & Liu, 2021), Brazil (Tacconi et al., 2019), and Ghana (Arcilla et al., 2015). This is also a significant concern of the United Nations (Carrillo Yap, 2021). However, forest management in Central Aceh differs in strategy, method, and process, particularly by *pengulu uten*, due to its adherence to Islamic law. This has indeed become flesh and blood of Acehnese society, that tradition and Islam are integrated into one attitude in various conditions and circumstances, including in resolving cases, both between humans and humans with the environment such as forests (Kasim & Nurdin, 2020; Misran, 2020).

Customary institutions in the field of forestry in Aceh are specifically regulated in Aceh Qanun No. 7/2016 concerning Aceh Forestry. This regulation divides three types of forests: state forests, rights forests, and customary forests, where each type of forest has a management party. Generally, the three types of forests are managed by the state by giving authority to each related institution (Mardhiah et al., 2018). However, the state has not delegated any particular jurisdiction to customary institutions to manage woods near indigenous peoples until recently. In fact, Article 98 letter j of Law No. 11/2006 concerning the Government of Aceh regulates the *glee handler* with the authority to supervise forests in Aceh. While in Central Aceh, it was named *pengulu uten* based on Article 5 paragraph (3) letter j Qanun of Central Aceh Regency No. 10/2002 concerning Gayo Customary Law. Therefore, it is essential to empower customary institutions in Aceh to manage forests, particularly in Aceh's application of Islamic law, where sharia-based forest management is thought to be consistent with *fiqh al-bī'ah* principles.

Given this fact, this study holds significant importance in examining the compatibility between the forest management model implemented by *pengulu uten* and the principles of *fiqh al-bī'ah* within the framework of Islamic law. This article holds considerable significance for the multifaceted involvement of *pengulu uten* in forest management, which emanates from the tripartite nexus of state, religion, and custom. This particular context offers a novel contribution to the existing forest management model by incorporating the principles of Islam as a religious and moral framework that emphasizes the preservation of wealth and the protection of nature (*hifẓ al-Ālam*). Thus, this article presents a novel contribution to the field of forest management by offering fresh insights and innovative perspectives derived from the realms of religion, state, and customary institutions.

The issues and interests of forest management are addressed by empirical legal research methods and a qualitative approach (Satori & Komariah, 2009). In order to obtain relevant data, a comprehensive literature review was conducted, encompassing a wide range of sources, including books, articles, research reports, and online news publications. The subsequent step involved conducting Focus Group Discussions (FGDs) and interviews with pertinent stakeholders. These stakeholders included the Central Aceh Environment and Forestry Service, which served as the primary source of information; the Aceh Customary Council; the Central Aceh House of Representatives related to forest protection programs in Central Aceh; academics and Central Aceh community leaders, especially those in charge of controlling customary forests in Aceh, known as *pengulu uten*. Observations were conducted in Central Aceh to discover the forest management model by the local *pengulu uten*. The collected data is interpreted descriptively, employing the theoretical framework of *fiqh al-bī'ah*. This study employed a meticulous approach in which only pertinent data were conscientiously utilized. The subject of inquiry pertains to a specific dataset encompassing the facilitation of customary institutions in the realm of forest management within the region of Aceh. To analyze the data obtained, the researcher employed the analytical framework formulated by Miles and Huberman. This approach involves ongoing interactive analysis of qualitative data until no further data or information necessitates inclusion (Miles & Huberman, 1994). The data analysis process encompasses three distinct stages: data reduction, data presentation, conclusion drawing, and data verification (Nugrahani et al., 2014).

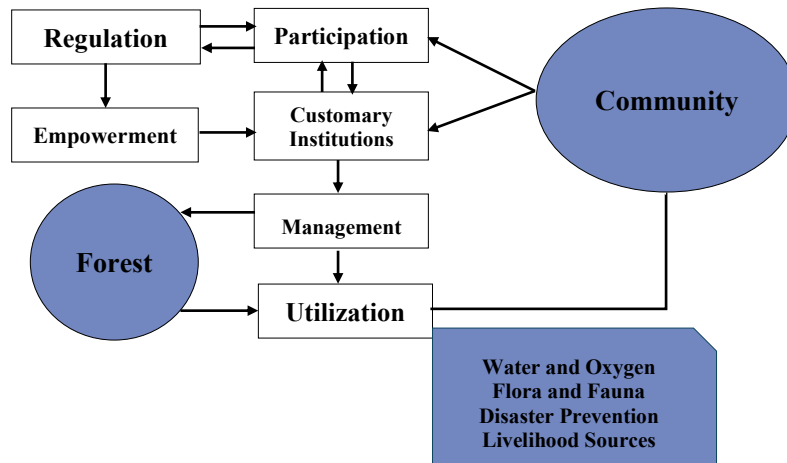
When delving into the vast body of literature on forest management, numerous studies offer valuable insights into this issue. Ali Abu Bakar (2018) conducted a case study in the Bener Kelipah District, Bener Meriah Regency, to analyze the enforcement of sanctions for the violation of illegal logging, as stipulated in Law No. 18/2013 concerning the Prevention and Eradication of Forest Destruction. The result highlights the challenges of implementing sanctions and the effectiveness of the law in addressing deforestation. On the other hand, a study conducted by Gamal Akhyar and Allizana Muzdalifah (2019) delves into the customary criminal justice system employed by village authorities in Lamgugob Village, Syiah Kuala

District. This study creates a space to explore the harmonization of customary law and formal legal systems. The findings shed light on the complexities of addressing customary punishment within the framework of official legal law at the local level.

Meanwhile, M. Al-Fairusy (2019) discusses the cultural communication strategies employed by the local community in post-tsunami Aceh to combat the issue of illegal logging. The study has demonstrated the significance of integrating local values and culture to preserve forests through this approach. The study conducted by Rakhmadsyah Putra Rangkuti et al. (2020) delves into the intricate relationship between social capital and local wisdom in forest management in North Aceh. This study sheds light on the active participation of indigenous communities in the sustainable management of forests. The recent findings can catalyze the advancement of management frameworks incorporating dynamic engagement from local communities. In a recent study conducted by Yulia and Herinawati (2022), the focus was placed on examining socialization and legal education in forest management within the region of North Aceh. The study was firmly rooted in exploring local wisdom, providing valuable insights into this particular context (Syaikhu et al., 2023). A comprehensive examination is presented in this study, focusing on how community empowerment, through the comprehension of legal frameworks and local knowledge, can significantly augment consciousness regarding the sustainable management of forests. In a global context, Muhammad Yunus Ali (2018) explores the concept of Islamic marketing ethics within the broader contexts of Islamic culture, marketing practices, and consumer behavior. This study provides an overview of the Islamic viewpoint within business and marketing. Maghfirah et al. (2022) embraced the incorporation of Islamic environmental ethics in the establishment of the Seladang Café business. This study offers a practical overview of incorporating environmental values within business. The literature review also considers religious viewpoints in environmental management, as discussed by Fazlun Khalid (2017) and Ahsin Sakho Muhammad et al. (2006). This study highlights the pressing need to integrate Islamic values into the framework of *fiqh al-bī'ah*. The literature review establishes a comprehensive and varied basis for exploring forest management through the lenses of law, culture, and Islam.

### **Forest Management in Central Aceh in the National Legal System**

The present study aims to elucidate the forest management model employed by customary institutions in Central Aceh. In order to accomplish the objective above, it is imperative to acquire a comprehensive comprehension of the forest management institutions' relevant regulations, as well as the pivotal role of *pengulu uten* in the realm of forest management within the region of Central Aceh. The significance of regulations and customary institutions in forest management must be considered. These factors substantially influence the overall management practices employed in forested areas. By understanding forest management institutions and the role of customary institutions, this study aims to enhance a comprehensive understanding of the forest management model employed by customary institutions in Central Aceh. Through this study, it is anticipated that the regulations and customary institutions involved in forest management can be elucidated and *the pengulu uten* forest management model implemented. Thus, this framework serves as a robust basis for elucidating the contribution and distinctiveness of this study within the realm of forest management in Central Aceh.



Picture 1.

**Ideal forest management trajectory**

Source: Abstracted from literature

The aforementioned framework might be elucidated subsequently: *Firstly*, regulations in the form of laws and regulations on the imperative for community participation in forest management and damage prevention (Barnasaputri, 2021). The community itself—in this context, the people of Central Aceh—has a customary institution authorized to regulate forest management and sustainability, called *pengulu uten*/forest leader. The existence of *pengulu uten*, regulated in Article 5 paragraph (3) letter j of the Central Aceh Regency Qanun No. 10/2002 concerning Gayo Customary Law, the regulatory mandate to establish and activate community participation in forest management. The values embraced within customary institutions can serve as a source of law for the development of legal norms in regulation (Syahputra & Jamilah, 2018). Moreover, customary institutions in Central Aceh also adhere to Islamic values, which emphasize the perception of nature and its surroundings as a divine gift from God and the community as the *Khalifah* who should protect it (Zuhdi, 2015).

*Secondly*, it is imperative to acknowledge the significant role that *pengulu uten* can play, and thus, it is crucial to re-empower them by adhering to the prevailing regulations and upholding the values that are nurtured and advanced within customary institutions (Gayo, 2018). Through regulation, it is expected that *pengulu uten* will be authorized to manage forests in their respective environments. The authority above is intrinsically linked to diverse forest utilizations, which contribute to the overall sustainability of forests for the broader community. These utilizations play a crucial role in safeguarding forests as vital sources of life, encompassing essential elements such as water and oxygen provision, biodiversity preservation, flood mitigation, and livelihood opportunities (Noviatur, 2020).

Several forest regulations include Law No. 41/1999 concerning Forestry, Law No. 18/2008 concerning Prevention and Eradication of Forest Destruction, and Law No. 32/2009 concerning Environmental Protection and Management. These three laws are the focus of the Ministry of Environment and Forestry's attention. These three laws share similar principles, specifically community involvement (Rahmat & Heniarti, 2022). In addition, Aceh has special regulations governing customary institutions in forest management in Aceh. These regulations include Law No. 11/2006 concerning the Government of Aceh, Aceh Qanun No. 10/2008 concerning Customary Institutions, Aceh Qanun No. 7/2016 concerning Aceh Forestry, and Central Aceh Regency Qanun No. 10/2002 concerning Gayo Customary Law.

Article 2 of Law No. 41/1999 concerning Forestry contains principles including (1) The principle of benefit and sustainability intended to ensure that every implementation of forestry management considers the balance and preservation of environmental, social, cultural, and

economic elements. The utilization of forest resources should aim to provide maximum benefits for the prosperity of the people; (2) The principles of citizenship and justice intended to ensure that every forestry implementation provides equal opportunities and chances to all citizens by their capabilities, thereby enhancing the prosperity of the entire population. Therefore, it is imperative to prevent the occurrence of inappropriate practices in the delegation of forest management authority and permission for forest utilization; (3) The concept of togetherness intended to promote the implementation of collective efforts in forestry management, fostering a synergistic interdependence between local communities and the government; (4) The concept of inclusivity intended to ensure that every forestry activity involves and considers the aspirations of the community; (5) The concept of integration intended to ensure that every forestry implementation is carried out comprehensively, taking into account national interests, other sectors, and local communities.

The following fundamental principle of Law No. 18/2013 concerning the Prevention and Eradication of Forest Destruction is the process, manner, or act of destroying forests: (1) The principles of justice and legal certainty encompass the prevention and eradication of deforestation, which are carried out based on legal provisions and regulations, and enforced for all segments of society; (2) Sustainability entails the obligation and responsibility of individuals towards future generations and their peers within a generation to preserve the sustainability of forests; (3) The responsibility of the state in the prevention and eradication of forest destruction is a crucial task to ensure the preservation of forests; (4) The participation of the community in the prevention and eradication of deforestation plays a significant role in preserving the sustainability of forests; (5) Accountability, refers to the evaluation of the performance of forest conservation and eradication efforts through the assessment of the implementation process. This evaluation is conducted by examining the execution of predetermined plans that are characterized by simplicity, measurability, achievability, rationality, and schedulability. (6) The priority lies in the fact that forest destruction is a matter that requires immediate attention, thus necessitating the prioritization of investigation, prosecution, and legal action; (7) The integration and coordination of efforts in preventing and combating deforestation necessitate the incorporation of various cross-sectoral interests, stakeholders, and inter-sectoral and inter-interest coordination. The stakeholders in this context include the government, local government, and the general public (Husin, 2016; Zulkifli & Sastro, 2022).

Furthermore, the PPLH (Environmental Protection and Management) Law explains 14 principles, three directly associated with community participation, including Participatory, Local Wisdom, and Regional Autonomy. The concept of participation elucidates that every member of society is encouraged to actively engage in the decision-making process and implementation of environmental protection and management, both directly and indirectly (as stated in Article 2 letter k of PPLH law). According to Soegarda Poerbakawatja, participatory is defined as a democratic phenomenon whereby individuals are included in the planning and implementation all matters centered around their interests and also assume responsibility commensurate with their level of maturity and obligation (Gayo, 2018).

The concept of local wisdom elucidates that protecting and managing the environment should consider the noble values prevalent in the societal framework (Article 2, Letter l, PPLH Law). This principle encapsulates the notion that environmental management should consistently consider the values, customary laws, or prevailing practices within the local community (Slamet, 2016). The notion of local wisdom, in other words, constitutes an integral component of a society's culture that is inseparable from the society itself (Al-Fairusy, 2019). In general, local wisdom encompasses various forms of wisdom that are rooted in positive values that are believed, applied, and always maintained over a long period (from generation to generation) by a group of people in a particular environment or geographical region

inhabited by the collective (Utomo, 2018). This framework can be utilized by stakeholders as a means of equity in participating in establishing welfare and mediating differences among stakeholders to reach a collective conclusion regarding the protection and management of the environment (Octavia, 2022).

The concept of regional autonomy elucidates that both the central government and local governments must possess the ability to independently govern and manage matters about environmental protection and management while taking into consideration the specificities and diversities of each region within the framework of the Unitary State of the Republic of Indonesia (as stated in Article 2, letter n of PPLH Law) (Simandjuntak, 2016). The principle of regional autonomy generally encompasses the notion that the central government and regional governments are granted the authority to independently govern and manage governmental affairs in the field of environmental protection and management, guided by Article 5 of Law No. 23/2014. This article consists of the principles of decentralization, deconcentration, and task delegation (Fauzi, 2019). Related to local wisdom that is closely related to customary law, indigenous peoples in Indonesia are constitutionally recognized as stated in Article 18B paragraph (2) of the 1945 Constitution of the Republic of Indonesia (UUD NRI) and its amendments stating that “*The State shall recognize and respect entities of the adat law societies along with their traditional rights to the extent they still exist and are by the development of the society and the principle of the Unitary State of the Republic of Indonesia, which laws shall regulate.*” The recognition of the existence of indigenous communities *de jure* is also affirmed in Article 28I paragraph (3) of UUD 1945, which states, “*The cultural identity and the right of traditional societies shall be respected in harmony with the development of the age and civilization*” (Syafaat, 2008).

The existence of local wisdom in forest management has been explored by the Sejati Foundation in four provinces (East Kalimantan, Maluku, Papua, and East Nusa Tenggara), revealing that despite the variations in these local systems, several principles of local wisdom can be observed that are still respected and practiced by indigenous communities (Djawas & Samad, 2020). These principles include: 1) The coexistence of humans in harmony with nature, adhering to the mechanisms of the ecosystem, wherein humans are integral components necessitating the preservation of equilibrium, is emphasized; 2) the existence of communal tenure/"property" rights over forest areas is characterized by an exclusive nature, which binds all community members to preserve and safeguard the said areas from any form of damage; 3) The existence of a knowledge system and institutional structure (government) of customary law provides the community with the ability to collectively address the challenges they face in the utilization of forest resources; 4) The presence of a system of division of labor and the enforcement of customary law is crucial in safeguarding collectively owned resources from excessive utilization, both by the local community and external parties; 5) the existence of equalizing the distribution of yields from collectively owned natural resources, with the objective of mitigating social envy within communities (Nababan, 2008).

This pattern will be developed in the empowerment of the Aceh Customary Institutions. What is meant by customary institutions is

“...is an organization of customary community formed by a specific customary legal community, having a specific territory, possessing its wealth, and having the right and authority to regulate, manage, and settle matters related to Acehnese customs” (Article 1 point 9 of Qanun Aceh No. 10/2008 concerning Customary Institutions). In the province of Aceh, there exists a customary institution dedicated explicitly to addressing forest management issues, known as *Pawang Glee*, as stipulated in Article 1.27 of Aceh Qanun No. 10/2008 concerning Customary Institutions: “*Pawang Glee and Pawang Uteun or other names refer to individuals who lead and manage customs related to the management and conservation of the forest environment*” (Madya, 2020).

## Customary Institutions and Forest Management in Central Aceh

Aceh Tengah (Central Aceh), located in the province of Aceh, Indonesia, is a regency located in a highland area with a total land area of 4,454.50 km<sup>2</sup> and an altitude between 200–2600 meters above sea level (Dewantara & Azis, 2021). Aceh Tengah, located in the province of Aceh, is a region that has experienced significant forest degradation due to deforestation, encroachment, and illegal logging activities (Nuribadah, 2022). According to the Krueng Aceh Watershed and Protected Forest Management Agency, the quality of forest cover in the Lut Tawar Lake watershed in Central Aceh has experienced a decline, increasing natural disasters (Auni et al., 2022, Wiadnyana, 2015).

The forest degradation in Central Aceh and other regions in Aceh can be attributed to various factors, including illegal logging, forest encroachment, and the conversion of forests into agricultural or plantation land. In addition, natural factors such as natural disasters can exacerbate the condition of forests in Central Aceh. Hence, it is imperative to undertake efforts to preserve the sustainability of forests in Central Aceh and other regions within Aceh (Putra, 2018). The efforts above can be undertaken through sustainable forest management, law enforcement against illegal logging and deforestation, and the development of local community-based economies centered around sustainable forest management (Rahmat & Heniarti, 2022).

The dynamics of forest management, particularly concerning *pengulu uten*, reveal a series of occurrences that exemplify the complex interplay between the local community, laborers, and formal regulations related to the forest. Forest management, in its early stages, commenced with officially acknowledging the indigenous communities that inhabited the region before any agricultural endeavors. Land portions without gardens are distributed and administered through *reje kampung*, following their allocation and distribution based on the corresponding portion. In this process, certain areas are encompassed within the region and regulated as protected forests. Despite being reprimanded by the Forestry Police, a particular portion of the land located within a protected area has been granted permission for utilization in plantation activities following negotiations. The role of *pengulu uten* in forest management is indeed significant. Its existence is not only competing with the forest police (POLHUT) and the Forest Management Units (KPH), who oversee forest utilization but also facing national regulations related to protected forests and production forests. *Pengulu uten* assumes a pivotal position in forest functions as the forest ruler who governs the land, plants, and waters. The local community formally requested *pengulu uten* to strengthen the land and obtain a portion for gardening activities. *Pengulu not only* possesses extensive knowledge about forest regions but also fulfills a pivotal role in meeting the local community's needs. This includes allocating land for cultivation, supplying firewood, and managing other resources. Although formalized in the Qanun, the role of *pengulu uten* in forest management currently needs more influence within society. Tensions have emerged as *Pengulu Uten's* explored territory falls under the protected forest category in light of national regulations on protected forests and production forests. Despite receiving warnings from forest police and the government, the local communities that have planted coffee in the area continue to utilize it.

In light of the aforementioned ecological damage, the indigenous customary institution, as embodied by *pengulu uten* (forest leader) and *Reje Kampung* (Village Head), elucidated certain fundamental tenets about the responsibility entrusted to forest management in the Central Aceh region. These principles are as follows. First, the construction, dissemination, and socialization of information regarding forest utilization are conducted to the community. Adi (2023)—*Reje Kampung Hakim Bale Bujang*—One of the *Reje* in the Central Aceh region, elucidates the significance of forest management. The individual in question asserts that, as a *Reje*, he is responsible for providing guidance, education, and socialization to the community regarding



permissible activities and prohibitions in the utilization of forests within their jurisdiction. The action above has been executed in strict adherence to the legal framework of the Republic of Indonesia, specifically Article 12 of Central Aceh Regency Qanun No. 4/2011 concerning Village Administration.

The article above asserts that village governance is responsible for autonomously administering the government, executing development initiatives, preserving customs and traditions, harnessing natural resources, fostering harmony, enhancing societal well-being, improving the quality of Islamic law implementation, and safeguarding the dignity of the territory and its inhabitants. Furthermore, Article 21 paragraph (2) letter c of the Aceh Central Aceh Regency Qanun concerning Village Administration states, “*In carrying out its duties, Reje has an obligation to develop the potential of natural resources and preserve the environment.*” In addition, based on Article 44 paragraph (3) letter f of the Central Aceh Regency Qanun concerning Village Administration, the village government is also authorized to establish *pengulu uten*. The role of *pengulu uten* is crucial in preserving and managing forests in their specific areas. The individuals know the conditions and circumstances of forested areas and can identify locations suitable for agriculture (Pandiangan et al., 2017).

Second, the assertion of prohibition on unauthorized clearing of new land has been emphasised within protected forest areas. One of the customary institutions' crucial responsibilities is preserving forests within their jurisdiction to prevent deforestation and forest fires. The elucidation of these two aspects is consistently conveyed to the public during every occasion of the gathering. This information was based on Article 10 number 9 of Qanun Hakim Bale Bujang Village, Lut Tawar District, Central Aceh Regency, No. 10/2019 concerning Environmental Preservation, which clearly states the prohibition of “*membuka lahan baru dalam kawasan hutan lindung tanpa izin.*” It prohibited to clear protected forest areas without a license. In the context of forest management in the region above, Adi further highlighted that there currently needs to be more legally formalized *pengulu uten* operating in that particular area (Adi, 2023).

Third, the role and responsibilities of the community become significant. Ampera—*Reje Kampung Asir-Asir*—elucidates the pivotal role society plays in preserving the sustainability of forests. Apart from fulfilling its role in offering guidance and facilitating socialization among residents, the community also assumes an active role in reporting forest use violations, particularly those about protected forests, to the *Reje Kampung*. The action above is undertaken as an effort to preserve the sustainability of the forest. *Reje Kampung* will call upon residents who commit violations to provide warnings and appropriate actions (Ampera, 2023).

Fourth, the role and responsibilities of *Pengulu Uten* become crucial. In several villages, a figure known as *pengulu uten*, plays a crucial role in preserving the forest in the respective region. The individuals possess profound knowledge regarding the conditions and circumstances of forest areas, as they frequently assume the role of being the first to enter said regions. When a community intends to clear land for plantations, *pengulu uten* is responsible for advising on the most appropriate locations for gardening activities. Upon ascertaining the precise location, *pengulu uten* dutifully conveys this information to *Reje Kampung*; thereby, it can be officially administered (Ampera, 2023).

Furthermore, the significance of the *Reje Kampung* in forest management and conservation should be considered. The community and *Reje Kampung* collaborate to safeguard the forest from destructive practices. *Pengulu uten*, as local experts, play a significant role in contributing their expertise by offering valuable knowledge and information regarding the state of the forest and providing guidance on land utilization. Through this collaboration, *Reje Kampung* will be able to implement suitable strategies to guarantee the sustainable utilization of natural resources and preserve the environment within the village vicinity.

Based on information conveyed by Hasan Rijal (2023)—a *pengulu uten* in Pamar or Pame region—*pengulu uten* has the responsibility to encompass the duty of facilitating the selection process for the *Reje Kampung* in division of the allocation of land for plantations, by the preferences expressed by local inhabitants who visit the region. Each resident who applies to a plantation area will be given 1 (one) stake of 2 Ha. Once the land has been allocated to the villagers, *pengulu uten* is responsible for informing the *Reje Kampung* about the precise location so it can be officially administrated. By involving the *Reje Kampung* in the administrative procedures, the systematic and compliant management of land for plantations can be effectively implemented within the village by applicable regulations. Implementing equitable land distribution practices and establishing robust monitoring and supervision mechanisms are crucial for facilitating effective land use in plantations.

Central Aceh's region exhibits several forest management models, including production forests, protected forests, community forests (also known as customary forests), and resource utilization. (1) With regards to production forest area, most of the intensively managed forest area in Central Aceh is production forest through Timber Forest Product Utilisation Business Permit (*Ijin Usaha Pemanfaatan Hasil Hutan Kayu/IUPHHK*) covering 1,131,000 ha. Production forests are managed by the Forest Management Units (FMUs) of Regions I and II. In managing production forests, it is necessary to consider aspects of sustainability and preserving forest resources (Siti Ikramatoun et al., 2020). (2) Besides the production forest area, Central Aceh also possesses protected forest areas managed by the FMUs of Regions I and II. The protected forest is crucial in preserving the sustainability of flora and fauna in Central Aceh. The maintenance of protected forests is crucial in preserving biodiversity and ensuring the stability of ecosystems (Ahmad et al., 2022). (3) Community forestry refers to a designated forest area managed by local communities to enhance societal well-being and preserve the environment. In Aceh Tengah, several community-managed forest areas are overseen by the local populace. The active participation of communities in community forest management is a crucial factor in ensuring the sustainability of forest resources (R. H. Putra, 2018). (4) The utilization of forest resources in Central Aceh involves various types, including timber, coffee, sugarcane, cocoa, vegetables, and food crops. In forest resource management, it becomes imperative to incorporate the principles of preservation and sustainability to ensure that the utilization practices do not inflict damage upon the ecosystem and yield enduring advantages for the community in the long run (Nasution, 2018).

Briefly, the management of forests is paramount in ensuring the principles of sustainability and conservation are upheld, thereby providing benefits to societal well-being and environmental preservation. The collaboration between the government, society, and various stakeholders is crucial in ensuring the sustainability of forests.

### **An Analysis of *Fiqh al-Bī'ah* in the Management of Forests in Central Aceh**

The maintenance of the environment in Arabic is known as environmental *fiqh* (*fiqh al-bī'ah*). The term *al-bī'ah* can be interpreted as the environment, which encompasses space, objects, conditions, and living beings, including humans, as well as their actions that affect the natural world, the sustainability, and the well-being of both humans and other living beings (Musa, 2010). This understanding elucidates that environmental *fiqh* (*fiqh al-bī'ah*) encompasses Islamic principles derived from comprehensive postulates regarding human behavior towards the environment. The overarching objective of these principles is to attain the collective welfare of the inhabitants of the earth while averting any harm that may arise (Hulaify, 2019). Hence, the concept of *fiqh al-bī'ah* refers to knowledge about ecological issues or is employed to critique human behavior that tends to harm and exploit the environment (Fathurahman, 2021). As elucidated in QS. al-A'rāf (7:36) concerning the damage inflicted upon the earth and the destroyer's eternal punishment.

Based on the examination of *fiqh al-bī'ah*, several perspectives can be applied to the forest management model in Central Aceh, as practiced by customary institutions such as *reje kampung*, community, and *pengulu uten*. The following is an explanation of these perspectives.

### **Protection of Nature (ecology/*hifz al-salām*) as the Essence of Religion**

The community of Central Aceh, represented by its customary institution, has implemented forest management using the approach above. From the perspective of *fiqh al-Bī'ah*, forest management within the broader context of ecology can be understood as an integral component of a religious belief that emphasizes the imperative to safeguard and conserve the environment (*hifz al-ālam*) (Hulaify, 2019). In his work entitled "*Ri'āyah al-Bī'ah fī Sharī'ah al-Islām*," Yusuf Qardhawi asserts that the preservation of the environment and the management of natural resources hold an equally significant status as the safeguarding of the five fundamental objectives of Islamic law (*maqāṣid al-sharī'ah*). Within the present framework, environmental conservation holds a legal status equivalent to *maqāṣid al-sharī'ah*. The fundamental tenet within the realm of *uṣul al-fiqh* asserts that anything that facilitates the realization of an obligation is considered a responsibility that necessitates fulfillment (Efendi et al., 2023, Noor, 2018).

### **The Principle of Faith Perfection through Forest Protection**

An individual's faith is not solely confined to the ritualistic aspects within places of worship but also encompasses the responsibility towards the environment as an integral component of the perfection of faith. The assertion above aligns with the principles of the Islamic faith, which places significant emphasis on preserving and protecting the environment (D. A. Putra, 2020). This context examines the role and responsibility of Central Aceh inhabitants in preserving the forest within their region. *Reje Kampung* plays a pivotal role in imparting knowledge and fostering social integration among the inhabitants of the local community regarding the judicious exploitation of forest resources. Moreover, it assumes an active role in reporting any transgressions about using forests to the competent governing bodies. The action above is undertaken as a concrete effort to preserve the sustainability of forests and prevent environmental degradation.

From the perspective of *fiqh al-bī'ah*, community involvement in environmental protection is a manifestation of complete faith. Faith in an individual is not solely confined to their relationship with the divine but also encompasses their connection with nature and fellow human beings (Rangkuti et al., 2020). The active involvement of the Central Aceh community in natural resource management demonstrates a profound understanding of religious values within the environmental context. This also exemplifies the paradigm shift in natural resource management, which has historically been inclined towards exploitation and a lack of emphasis on improvement and conservation.

The involvement of the community in environmental management reflects and challenges this paradigm. The community of Central Aceh serves as a tangible example of how faith can be manifested through concrete actions in preserving the environment and forest management. The adherence to the principles of natural resource sustainability and ecological function is upheld through the implementation of guidance, socialization, reporting of violations, and appropriate responses from the authorities (Sutrisno & Harnedi, 2018). The statement above posits that true faith is not solely manifested through ritualistic practices but also encompasses a sense of responsibility towards the environment. The tangible actions of the Central Aceh community in preserving the forest as part of the ecology represent the implementation of religious values in daily practice. It offers inspiration and presents challenges for developing a natural resource management paradigm characterized by equity, democracy, and sustainability.

### **The Role of *Pengulu Uten* as *Khalīfah***

The field of *fiqh al-bī'ah* acknowledges the significant role that humans, such as *Khalīfah*, play in environmental management (Riwan, 2013). In looking into customary institutions in Central Aceh, it is observed that these institutions play multiple roles, including providing fostering, counseling, and facilitating socialization about forest utilization. These functions are executed within the community. When examined through the perspective of *fiqh al-bī'ah*, it becomes apparent that the conservation of the environment is a responsibility that falls upon both individuals and communities. This is exemplified by the customary institutions in Central Aceh and their approach to forest management. In the realm of *fiqh al-bī'ah*, many arguments can be invoked to furnish fostering, counseling, and socialization about the utilization of forests within the community. This is primarily due to the recognition of humans as *Khalīfah* (leaders) on earth, thereby endowing them with the responsibility to uphold and safeguard the universe's integrity.

Allah SWT said in the QS. al-Baqarah (2:30), which can be inferred that nature was created for the benefit of humanity. However, humans are not allowed to exploit nature recklessly. The destruction of nature represents a form of denial towards the magnificence of Allah and will distance humanity from His mercy. Allah has issued a warning to humanity against engaging in activities that may lead to the destruction of the earth after its restoration by Allah. Humans should pray to Him with fear and hope that their prayers will be answered. Allah confirms that His mercy is very close to those who do good to nature (QS. al-A 'rāf 7:56) (Zuhaili, 2016).

### **The Principle of *al-Amr bi al-Ma'rūf wa al-Nahy 'an al-Munkar***

Islam encourages its adherents to spread *ma'rūf* (good) and forbid *munkar* (bad). In forest management, the goal of fostering, counseling, and community socializing about forest utilization is to promote activities consistent with Islamic good deeds and discourage those that harm the environment. The condition above is evident in the customary institution's approach towards forest conservation within its jurisdiction, particularly regarding logging and burning activities. The fundamental principles of *fiqh al-bī'ah* underpin the forest management model implemented by indigenous institutions within the community. This is because of the inclination of Islam to encourage its adherents to maintain environmental preservation and sustainability (Noor, 2018). In the context of forest utilization, customary institutions play a crucial role in ensuring that the community is well-informed about acceptable and unacceptable practices according to the norms and regulations governing forest utilization. This responsibility is primarily shouldered by the *Reje Kampung* and *pengulu uten*, who represent these customary institutions. This statement is based on the principle of *Khalīfah* on earth, where humans are entrusted with the responsibility of being leaders in preserving and safeguarding the universe.

### **The Principle of Ecosystem Equilibrium**

The management of forests in Central Aceh involves a diverse array of natural resource utilization, including timber, coffee, sugar cane, cocoa, vegetables, and food crops. It is crucial to consider the principles of ecosystem balance to ensure that these utilization activities do not cause environmental degradation. In Islam, preserving ecological equilibrium is of significant importance, as it is regarded as a crucial factor in ensuring the long-term viability of existence. The sustainable management of forest resources in Central Aceh can provide long-term benefits for community well-being while adhering to sustainability principles. In QS. al-Nahl (16:69), Allah said that He has provided the natural resources to be utilized for the people well-being.

## The Synergism of the Roles of Government, Customary Institutions, and Communities

The management of forests in Central Aceh heavily relies on the collaboration between the government, customary institutions, and local communities, as they play a crucial role in ensuring the sustainability of forest resources and the environment. The attainment of effective forest management is contingent upon the collaborative engagement of multiple parties rather than relying solely on the efforts of a single entity. The achievement of this objective necessitates harmonious collaboration and cooperation among all stakeholders involved in the process (F. Muhammad et al., 2018). As a regulator and policy maker, the government plays a central role in governing and safeguarding forests and ensuring the implementation of sustainable management practices. In this context, the Government of Central Aceh Regency collaborates with the Forest Management Units (FMUs) of Regions I and II in managing the production of forest and protected forest areas. Through the issuance of Timber Forest Product Utilization Business Permits, known as IUPHHK, the government regulates the utilization of forest resources while considering aspects of sustainability and conservation (S. Putra et al., 2017).

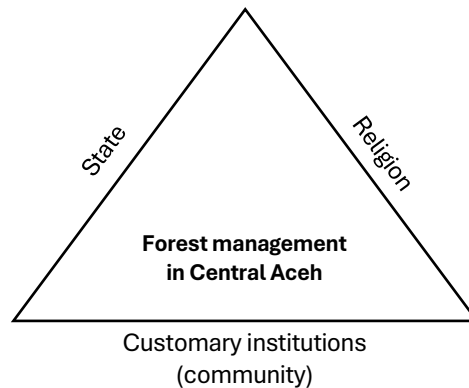
However, achieving sustainable forest management can only be realized with the active involvement of local communities. The Islamic faith places the imperative to safeguard and maintain the natural environment upon its adherents, as it is deemed a divine mandate from Allah SWT. The Prophet (SAW) said, "*Each of you is a leader, and each of you will be held accountable for those you lead*" (HR Al-Bukhari) (Darmalaksana, 2019). The awareness above has prompted the community in Central Aceh, represented by its customary institution, to actively participate in forest management by establishing customary forest areas. The active participation of communities in community forest management is a crucial factor in ensuring the sustainability of forest resources (F. Muhammad et al., 2018).

The collaboration between the government, customary institutions, and the community in forest management in Central Aceh is also supported by the principles of *fiqh al-bī'ah* in Islam. The principles of sustainability, justice, and ecosystem balance serve as the foundation for forest and natural resource management. Allah stated in QS. al-A'rāf (7:56), signifying the prohibition of environmental degradation. In the Prophet's hadith, he also stated, "*A person's faith will not be complete until he loves for his fellow beings what he loves for himself*" (HR Al-Bukhari). Thus, maintaining the sustainability of forests and the environment is a tangible manifestation of an individual's faith (Khalid, 2017).

In order to support sustainable forest management, the government has also issued various policies and regulations, such as law enforcement against forest use violations, forest rehabilitation programs, and ecotourism development. The fatwas issued by religious institutions such as the Indonesian Ulama Council (MUI) provide guidance and directives for preserving environmental sustainability (Muhaimin, 2022).

To achieve synergy, one of the indigenous observers in Central Aceh, about forest management, has proposed the utilization of customary institution known as "*Pengulu Opat*" for forest and environmental conservation. The institution comprises four appointed individuals responsible for safeguarding the forest and its surrounding environment. The responsibility of forest conservation lies with *Pengulu Uten*, while *Pengulu Uwer* oversees livestock maintenance. The individuals known as *Pengulu Wih* and *Kejurun Blang* have been responsible for safeguarding water sources and managing paddy fields. Joni proposes the functionalization of the customary institution "*Pengulu Opat*". However, the existence of the *pengulu uten* has not been formalized yet. Thus, issuing an official Letter of Decree (*Surat Keputusan/SK*) is recommended. There have been proposals in several villages currently undergoing development and socialization, such as Linge Village, regarding the conversion of protected forests into village forests. Banda Aceh Indigenous Community Network profoundly understands the extensive forested areas, customary practices, and industrial activities within

the village (MN. Joni, 2023). Therefore, the synergy pattern between religion, state, and indigenous people in forest management in Central Aceh should be described as follows.



**Picture 2**  
The synergism pattern of religion, state, customary institutions  
in forest management in Central Aceh

In conclusion, the sustainable management of forests necessitates collaboration among the government, society, and various stakeholders. The Islamic faith promotes active participation of the community in public affairs, including environmental management. The principles of *fiqh al-bī'ah* in Islam, such as sustainability, justice, and ecosystem balance, serve as guiding principles in preserving and conserving forest resources. In the context of Aceh Tengah, this collaboration is implemented through various types of forest management, such as production forests, protected forests, and community forests. With strong collaboration and high awareness, forest management in Central Aceh is expected to be conducted sustainably, providing long-term benefits to the community and preserving environmental sustainability.

The implementation of forest management by *pengulu uten* in Central Aceh is by the principles of *fiqh al-bī'ah*, which emphasizes the protection of nature as an essential part of the Islamic religion. *Pengulu uten* plays a significant role in fostering, counseling, and socializing the community towards protected forests, production forests, customary forests, and the sustainable utilization of forest resources. The principles of *fiqh al-bī'ah*, which pertain to managing natural resources, are evident in endeavors aimed at environmental preservation. These efforts emphasize the enhancement of faith through responsible forest management, the recognition of the pivotal role of humans as *Khalīfah* entrusted with safeguarding the environment, and the forest management practices and the ecosystem maintenance equilibrium aligned with the principles of *al-amr bi al-ma'rūf wa al-nahy 'an al-munkar*. By incorporating governmental participation into the legalization process, the presence of *pengulu uten* can be further strengthened. The synergy among the government, *pengulu uten*, and the community plays a vital role in ensuring the long-term viability of forest management rooted in the principles of *fiqh al-bī'ah*. This act of legalization establishes a robust legal framework, recognises the beneficial role of *pengulu uten*, and guarantees the integration of Islamic principles in the management of natural resources. Thus, the government's participation in the legalization of *pengulu uten* can enhance its impact and guarantee the long-term viability of sustainable forest management, aligning with religious principles.

## Conclusion

The study's findings indicate that the customary institution in Central Aceh plays a significant role in forest management within the region. Some examples of these roles include: 1) The village head conducts guidance, counseling, and socialisation related to forest utilization to the community; 2) Affirmation of the prohibition of clearing new land in protected forest areas without a permit; 3) Community participation in preventing forest damage; 4) *Pengulu uten* is in charge of guarding and monitoring the forests in Aceh Tengah. Regarding forest management models, various types of forest management exist in Central Aceh, including protected forest areas, production forest areas, customary forests, and forest resource utilization. Other findings reveal the presence of several principles of *fiqh al-bī'ah* in the forest management model in Central Aceh, including 1) the community's understanding that environmental protection is an integral part of religious essence; 2) the perfection of faith can be reflected through optimal and appropriate forest management; 3) the principle of human beings (*pengulu uten*) as *Khalīfah* who protect the environment; 4) forest management in Central Aceh is carried out depending on the principle of *al-amr bi al-ma'ruf wa al-nahy 'an al-munkar*; and 5) the principle of ecosystem balance. In order to ensure the sustainability of forest management, there should be synergy between the government, customary institutions, and communities in line with Islamic teachings. This will strengthen the parties' relationship and encourage sustainable forest management efforts.

## References

- Abu Bakar, A. (2018). Penerapan Sanksi Tindak Pidana Illegal Logging Di Kawasan Hutan Lindung Ditinjau Dari UU No. 18 Tahun 2013 tentang Pencegahan Dan Pemberantasan Perusakan Hutan (Studi Kasus Kecamatan Bener Kelipah Kabupaten Bener Meriah). *Petita : Jurnal Kajian Ilmu Hukum dan Syariah*, 3(1). <https://doi.org/10.22373/petita.v3i1.4017>
- Adi. (2023). Personal communication, 11 May.
- Ahmad, S., Yamani, Z., & Jamilah, M. (2022). Potensi Konflik Tenurial di Kawasan Hutan Lindung KPH Wilayah II Aceh. *Jurnal Sains Pertanian*, 12(2).
- Akhyyar, G., & Muzdalifah, A. (2019). Pertimbangan Pelimpahan Pidana Adat oleh Aparat Gampong ke Jalur Peradilan (Studi Kasus Gampong Lamgugob, Kecamatan Syiah Kuala). *LEGITIMASI: Jurnal Hukum Pidana dan Politik Hukum*, 8(2). <https://doi.org/10.22373/legitimasi.v8i2.5858>
- Al-Fairusy, M. (2019). Strategi Komunikasi Budaya Mukim Melawan Illegal Logging Pascatsunami Aceh. *At-Tanzir*.
- Ali, M. Y. (2018). An Islamic Model of Marketing Ethics. In *Islam, Marketing and Consumption*. <https://doi.org/10.4324/9781315797335-8>
- Ampera. (2023). Personal communication, 11 May
- Arcilla, N., Holbech, L. H., & O'Donnell, S. (2015). Severe Declines of Understory Birds follow illegal logging in Upper Guinea forests of Ghana, West Africa. *Biological Conservation*, 188.
- Auni, L., Manan, A., & Abubakar, A. Y. (2022). Factors Changing the Gayo Ethnic's Traditional Marriage Procession in Lut Tawar Sub-District of Takengon, Central Aceh, Indonesia. *Samarah*, 6(2). <https://doi.org/10.22373/sjhc.v6i2.14888>
- Barnasaputri, I. I. (2021). Jalan Panjang Pengakuan Kesatuan Masyarakat Hukum Adat Melalui Peraturan Daerah: Beberapa Persoalan yang Belum Selesai. *Notaire*, 4(1).
- Carrillo Yap, S. L. (2021). The Role of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (ICH Convention) in the Protection of Traditional Forest-

- Related Knowledge (TFRK) of Amazonian Indigenous peoples. *International Journal of Human Rights*, 25(5), 853–869.
- Daniel, M. (2022). *Akses Transportasi Medan-Banda Aceh Putus, Hingga Sembako di Aceh Timur Melambung*. Aceh Online.
- Darmalaksana, W. (2019). Kebijakan Penanggulangan Sampah Kota Bandung: Prespektif fiqih lingkungan. *Digilib.Uinsgd.Ac.Id*, 1(3).
- Dewantara, R. D., & Azis, D. (2021). Evaluasi Kesesuaian Lahan Perkebunan Tembakau di Kabupaten Aceh Tengah Menggunakan Analisis Sistem Informasi Geografis. *Jurnal Pendidikan Geosfer*, 6(1), 27–35.
- Djawas, M., & Samad, S. A. A. (2020). Conflict, Traditional, and Family Resistance: The Pattern of Dispute Resolution in Acehnese Community According to Islamic Law. *Samarah: Jurnal Hukum Keluarga Dan Hukum Islam*, 4(1), 65–84. <http://www.nber.org/papers/w16019>
- Efendi, E., Zuhri, M., Tarmizi, T., Hadi, A., & Yunanda, R. (2023). Animal Protection in the Perspective of Positive Law and Islamic Law: A Study of Elephant-Human Conflict in Aceh, Indonesia. *Samarah*, 7(1), 175–196. <https://doi.org/10.22373/sjhc.v7i1.15381>
- Fathurahman, M. (2021). Penanaman Karakter Peduli Lingkungan Melalui Pengajaran Fikih Ekologi Pada Anak Usia Dini. *WISDOM: Jurnal Pendidikan Anak Usia Dini*, 2(2).
- Fauzi, A. (2019). Otonomi Daerah dalam Kerangka Mewujudkan Penyelenggaraan Pemerintahan Daerah Yang Baik. *Spektrum Hukum*, 16(1), 119.
- Gayo, A. A. (2018). Perlindungan Hukum Hak Atas Tanah Adat (Studi Kasus Di Provinsi Aceh Khususnya Kabupaten Bener Meriah). *De Jure Jurnal Penelitian Hukum*, 18(3), 15.
- HB, G., & Hanifah, M. (2018). Pola Perlindungan Hutan Adat Terhadap Masyarakat Adat Di Provinsi Riau Pasca Putusan Mahkamah Konstitusi Nomor 35/PUU-X/2012. *Jurnal Hukum Respublica*, 16(1).
- Hulaify, A. (2019). Etika Lingkungan Perspektif Hukum Islam. *Al Iqtishadiyah: Jurnal Ekonomi Syariah Dan Hukum Ekonomi Syariah*, 4(1).
- Husin, T. (2016). Kewenangan Pemerintah Aceh dalam Pengelolaan Hutan Aceh. *Kanun: Jurnal Ilmu Hukum*, 57, 233–248.
- Indonesia, W. (2018). *Kehilangan Tutupan Pohon di Aceh*. WRI Indonesia.
- Iskandar, T. D. (2022). 2.945 warga Aceh Barat Terdampak Banjir. Antara News.
- Kasim, F. M., & Nurdin, A. (2020). Study of Sociological Law on Conflict Resolution through Adat in Aceh Community According to Islamic Law. *Samarah*, 4(2), 375–397. <https://doi.org/10.22373/sjhc.v4i2.8231>
- Kehutanan, K. L. H. dan. (2019). *Hutan Aceh Terus Menyusut*. Kementerian Lingkungan Hidup dan Kehutanan.
- Khalid, F. M. (2017). Exploring Environmental Ethics in Islam: Insight from the Qurán and the Practice of Prophet Muhammad. *The Wiley Blackwell Companion to Religion and Ecology*, April 2017.
- Maghfirah, F., Husna, F., Muammar, M., & Muksalmina, M. (2022). Fiqh Al-Bi'ah: Islamic Environmental Ethics In Business Development of Seladang Café. *Proceedings of Malikussaleh International Conference on Law, Legal Studies and Social Science (MICoLLS)*, 2. <https://doi.org/10.29103/micolls.v2i.94>
- Mardhiah, A., Supriatno, S., & Djufri, D. (2018). Pengelolaan Hutan Berbasis Kearifan Lokal dan Pengembangan Hutan Desa di Mukim Lutueng Kecamatan Mane Kabupaten Pidie Provinsi Aceh. *BIOTIK: Jurnal Ilmiah Biologi Teknologi dan Kependidikan*, 4(2), 128.
- Masriadi. (2022). *Hari Ke-12 Banjir Aceh Tamiang, 3.670 Orang Masih Mengungsi*.



Kompas.Com.

- Miles, M. B., & Huberman, A. M. (1994). Qualitative Data Analisis. In *CEUR Workshop Proceedings*.
- Misran, M. (2020). Eksistensi Hukum Adat Gayo dalam Menyelesaikan Perkara di Kutacane Aceh Tenggara. *LEGITIMASI: Jurnal Hukum Pidana Dan Politik Hukum*, 9(1), 67.
- MN. Joni. (2023). Personal communication, 23 May.
- Muhaimin. (2022). Fatwa MUI Nomor 22 Tahun 2011 Tentang Pertambangan Ramah Lingkungan Perspektif Maqashid Al-Syari'ah. *Yudisia: Jurnal Pemikiran Hukum Dan Hukum Islam*, 13(1), 49–64.
- Muhammad, A. S., Muhammad, H., Maburur, R., Abbas, A. S., Firman, A., Mangunjaya, F., Pasha, K. I., & Andriana, M. (2006). Fiqh Lingkungan (Fiqh al-Bī'ah). *Pertemuan Menggagas Fiqh Lingkungan (Fiqh Al-Bī'ah) Oleh Ulama Pesantren Di Lido, Sukabumi, 9-12 Mei 2004*.
- Muhammad, F., Hendroyono, B., Supriyono, B., & Wijaya, A. F. (2018). The Influence of the Intelligence of Transglobal Leadership on Good Governance-Based Forest Management. *Bisnis & Birokrasi Journal*, 23(3).
- Muhari, A. (2022). *Sebanyak 2.436 Warga Terpaksa Mengungsi Akibat Banjir di Aceh Timur*. Badan Penanggulangan Bencana. <https://www.bnpb.go.id/berita/sebanyak-2-436-warga-terpaksa-mengungsi-akibat-banjir-di-aceh-timur>
- Musa, Z. M. (2010). Fiqh Al-Bī'ah: Prinsip Interaksi Manusia dengan Alam Persekitaran. *Jurnal Syariah*, 18(1).
- Nababan, A. (2008). *Pengelolaan Hutan Berbasis Masyarakat Adat: Antara Konsep dan Realitas*.
- Najmi, I. (2022). *Banjir Setinggi Satu Meter Lumpuhkan Transportasi Darat di Aceh*. Detik Finance.
- Narindrani, F. (2018). Upaya Masyarakat dalam Pencegahan dan Pemberantasan Pembalakan Liar di Indonesia. *Jurnal Penelitian Hukum De Jure*, 18(2).
- Nasution, P. (2018). “Wase Glee:” Dari Kearifan Hingga Kenaifan Lokal Para Peramu Hasil Hutan di Aceh. *Umbara*, 2(1).
- Noor, F. (2018). Pengelolaan Sumber Daya Alam Berdasar Prinsip Fiqh Al-Bī'ah. *Jurnal Ilmiah Pendidikan Pancasila Dan Kewarganegaraan*, 3(1).
- Noviatur, F. (2020). *Tindak Pidana Perusakan Hutan Menurut Undang- Undang Nomor 18 Tahun 2013 Dan Kajian Fiqh Al- Bi'Ah*.
- Nugrahani, Farida, & Hum, M. (2014). *Metode Penelitian Kualitatif*. Cakra Books.
- Nuribadah, N. (2022). Eksistensi Pemerintah Aceh Dalam Mengurangi Kerusakan Hutan Aceh. *Asia-Pacific Journal of Public Policy*, 8(1), 25–35.
- Octavia, M. (2022). *Asas Perlindungan dan Pengelolaan Lingkungan Hidup*.
- Pandiangan, E., Ardiansyah, M., & Rusdiana, O. (2017). Analysis of changes in land cover to support the management of Gunung Leuser National Park. *Journal of Regional and City Planning*, 28(2).
- Penelitian, L. A., & Madya, K. (2020). *Konsep Pengelolaan Hutan Berbasis Kearifan Lokal Oleh Pawang Uteun ( Pawang Hutan )*.
- Prakasa, H., Akmal, A. Z., Guci, W. A., & Edi, S. (2018). Analisis HabitaT (Anaphalis Longifolia (Blume) Blume ex DC.) Di Sumatera Utara. *Jurnal Biosains*, 4(2).
- Putra, D. A. (2020). Hutan Adat dalam Perspektif Islam: Studi Kasus Hutan Adat Guguk Propinsi Jambi. *Jurnal Indo-Islamika*, 5(1).
- Putra, R. H. (2018). Masyarakat Aceh dan Konservasi Kawasan Ekosistem Leuser. *Prosiding*

*Biotik*, 2(1).

- Putra, S., Sugianto, S., & Basri, H. (2017). Analisis Perubahan Tutupan dan Lahan Kritis Pada Daerah Tangkapan Air Danau Laut Tawar Kabupaten Aceh Tengah. *Prosiding Seminar Nasional Pascasarjana Unsyiah*.
- Rahmat, P. I. S., & Heniarti, D. D. (2022). Penegakan Hukum Pidana Militer terhadap Pelaku Tindak Pidana Illegal Logging oleh TNI. *Bandung Conference Series: Law Studies*, 2(1).
- Rangkuti, R. P., Ketaren, A., & Ridwan, D. (2020). Modal Sosial dan Kearifan Loka dalam Pengelolaan Hutan: Studi Kasus di Kawasan Hutan Gampong Kunci Kecamatan Sawang Kabupaten Aceh Utara. *Jurnal Sosiologi USK (Media Pemikiran & Aplikasi)*, 14(2). <https://doi.org/10.24815/jsu.v14i2.18894>
- Riwan, M. (2013). Fiqh Ekologi Membangun Fiqh Ekologis Untuk Pelestarian Kosmos. *Mazahib Jurnal Pemikiran Hukum Islam*, 12(2), 77–88.
- Satori, D., & Komariah, A. (2009). Metodologi penelitian kualitatif. *Bandung: Alfabeta*.
- Simandjuntak, R. (2016). Sistem Desentralisasi Dalam Negara Kesatuan Republik Indonesia Perspektif Yuridis Konstitusional. *Journal de Jure*, 7(1).
- Siregar, G. T., & Silaban, R. (2020). Penanganan Pelaku Tindak Pidana Illegal Logging Di Wilayah Hukum Kepolisian Resor Labuhanbatu. *Jurnal Darma Agung*, 28(2).
- Siti Ikramatoun, Khairulyadi, & Riduan. (2020). Pemberdayaan Masyarakat melalui Pengelolaan Hutan Pinus di Kecamatan Linge Aceh Tengah. *Jurnal Sosiologi Agama Indonesia (JSAI)*, 1(3), 238–249.
- Slamet, B. (2016). Manajemen Hidrologi di Lahan Gambut. *Lestari*, 1(1).
- Sutrisno, S., & Harnedi, J. (2018). Membangun Masyarakat Sadar Wisata dan Sadar Bencana Di Kawasan Danau Lut Tawar Takengon. *Jurnal As-Salam*, 2(3).
- Syafaat, R. (2008). *Negara, Masyarakat Adat dan Kearifan Lokal* (I. T. Publishing (Ed.)).
- Syahputra, O. H., & Jamilah, M. (2018). Peningkatan Sumberdaya Manusia Melalui Kuliah Umum Kehutanan Di Smkn - Pp Kabupaten Bireuen Aceh dalam Menunjang Pengelolaan Hutan Lestari. *RAMBIDEUN : Jurnal Pengabdian kepada Masyarakat*, 1(1), 22–28.
- Syaikhu, S., Al Amruzi, M. F., Mujiburrahman, M., & Norwili, N. (2023). Legal Harmonization in the Distribution of Inheritance in the Dayak Ngaju Community in Central Kalimantan, Indonesia. *Samarah*, 7(1), 195–215. <https://doi.org/10.22373/sjhg.v7i1.12410>
- Tacconi, L., Rodrigues, R. J., & Maryudi, A. (2019). Law Enforcement and Deforestation: Lessons for Indonesia from Brazil. *Forest Policy and Economics*, 108 (June).
- Utomo, S. (2018). Nilai-nilai Kearifan Lokal Hukum Adat dalam Hukum Tanah Nasional. *Jurnal Hukum Media Bhakti*, 2(1).
- Wach Forest, G. (2020). *Kehilangan Hutan Primer Di Subulussalam, Aceh, Indonesia*. Global Wach Forest.
- Warsidi, A. (2017). *Banjir Bandang Aceh, Walhi: Salah Satunya Akibat Pembalakan Liar*. Tempo.Co.
- Wiadnyana, N. N. (Ed.). (2015). *Pengelolaan Sumber Daya Perikanan Danau Laut Tawar Aceh Tengah*. Amafrad Press.
- Yulia, Y., & Herinawati, H. (2022). Sosialisasi dan Penyuluhan Hukum Pengelolaan Hutan Berbasis Kearifan Lokal Di Kabupaten Aceh Utara. *Jurnal ABDINUS: Jurnal Pengabdian Nusantara*, 6(3). <https://doi.org/10.29407/ja.v6i3.16122>
- Zhao, D., & Liu, F. (2021). Indigenous Forest Knowledge (IFK) and Nature Reserve Workers' Perceptions of IFK: A Case Study of Leigongshan National Nature Reserve, China. *Journal of Sustainable Forestry*, 1–24.

- Zuhaili, W. (2016). *Tafsir Al-Munir: Aqidah, Syari'ah, Manhaj, Gema Insani*.
- Zuhdi, M. H. (2015). Rekonstruksi Fiqh Al-Bi'Ah Berbasis Masalah: Solusi Islam Terhadap Krisis Lingkungan. *Istinbath: Jurnal Hukum Islam*, 14(1), 42–63.
- Zulkifli, Z., & Sastro, M. (2022). Penegakan Hukum Pidana Terhadap Kejahatan Korporasi Di Sektor Kehutanan di Kabupaten Aceh Tengah. *Suloh: Jurnal Fakultas Hukum Universitas Malikussaleh*, 10(1).

